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Vol. XXV APRIL 1959 No. 10

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Vol. XXV] APRIL 1959 [No. 10

PYELONEPHRITIS—A MIMIC OF DISEASES

By

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PYELONEPHRITIS is much commoner than we generally realise. Our hospital data hardly reflects the true incidence of the disease. A clinician is amazed when his attention is drawn by the pathologist on various occasions to the presence of pyelonephritis at autopsy, the significance of which having not been realised ante-mortem. General ill health and morbidity from urinary tract infection is not appreciated much. We on our part have become cognisant of this disease after having failed to diagnose it on more than one occasion. Some say the incidence of pyelonephritis is as common as upper respiratory infection. It is certainly so in infants, children and women, because of their short urethra.

Every one is familiar with the classical symptoms of pyelonephritis namely, fever with rigor, headache, pain in costo-vertebral angles, dysuria, frequency of urine with pyuria and bacilluria, sometimes associated with haematuria. It is due to the failure to recognise other clinical manifestations in the absence of overt symptomatology that mistakes are made. We have come across acute pyelonephritis presenting as malaria, influenza, acute appendicitis, salphingitis, ectopic pregnancy, septicaemia. Malignant hypertension associated with acute pyelitis has been recorded, its severity dramatically responding to antibiotics.

Time spent on eliciting a careful history is always rewarding. Though pus and organisms will always be present in most of the cases, their absence does not exclude pyelonephritis if the infection is limited to the interstitial tissues, not communicating with the calyces.

It is better to classify pyelonephritis into : (1) acute ; (2) recurrent and (3) chronic.

Acute pyelonephritis is the most common of three and is easily curable in early stages. If, however, its importance is not realised, it may lead to the chronic stage associated with prolonged ill health with frequent exacerbations of symptoms. An acute form, known as acute necrotising papillitis, often associated with diabetes mellitus, produces severe symptoms of renal colic. Flakes of fleshy papillae are seen in the urine macroscopically.

Chronic pyelonephritis has also different forms of presentations. It may remain asymptomatic for several years, pyuria, and bacilluria being discovered on routine examination. Vague symptoms of ill health attributed to chronic amoebiasis, mild anaemia, anxiety and other diseases may also arise from chronic pyelonephritis.

It should be remembered that pyelonephritis is more common than chronic glomerulonephritis and roughly one fourth of the cases of hypertension, malignant or benign, may be due to this disease. Chronic refractory anaemia, not responding to haematinics, have been discovered due to chronic azotaemia secondary to chronic pyelonephritis. Chronic renal inefficiency may start with only nocturia and then develop into chronic uraemia, which may persist for a number of years with chronic ill health, only to be tragically discovered in the terminal stage. The frequent cause of chronic azotaemia without hypertension is chronic pyelonephritis. The patient may also present with haematuria and the investigation may not show the well known causes. However, an appropriate treatment of pyelonephritis with antibiotics may cure the condition.

Rare and less well known condition of base losing nephritis may present as a case of Addisonian crisis with vomiting, lethargy, weakness and even pigmentation. These patients do not respond to corticosteroids. Just as the glomeruli are predominantly affected in acute glomerulonephritis, so also, the brunt of the disease is borne by the tubules. The defect in the tubules may inhibit the reabsorption of sodium thus leading to a salt-losing state. Similarly, potassium may not be conserved and be lost in the urine giving rise to potassium-losing nephritis mimicking primary aldosteronism, (Conn's syndrome). The latter condition manifests itself with marked weakness of muscles, sometimes causing even paralysis of the extremities such as is seen in the periodic familial paralysis.

Calcium may also be lost and give rise to renal osteodystrophy, namely, osteomalacia, rickets and secondary osteitis fibrosa cystica.

Chronic renal insufficiency may start with polyuria with fixed specific gravity (between 1008 to 1012). Hypotonic urine as in diabetes insipidus due to the involvement of the distal part of the tubules may be seen rarely.

Investigations : It must be realised that it is not uncommon for pyelonephritis to involve one kidney alone. Chronic or recurrent infections, inspite of adequate treatment, should lead one to investigate for congenital developmental defects, calculi or obstruction to the renal flow. The urine should be examined for pus cells, organisms and their sensitivity to antibiotics.

Isolation of organisms is not always possible in general practice and in small hospitals. More than 5 pus cells per high power should arouse suspicion of urinary tract infection. It should not be forgotten that excretion of pus cells or organisms differs in the same patient at different times, and it is not uncommon for the urine to be normal especially in chronic pyelonephritis. Both macroscopic and microscopic haematuria can occur, while other tests may remain normal. Once the severe infection is adequately controlled, cystoscopy and pyelography may be done. In our experience B. coli is the commonest attending organism and in the majority of cases is associated with other organisms, namely, streptococcus, faecalis paracolon, bacilli, other streptococci, staphylococci, proteus vulgaris, pseudomonas and aerobacter aerogenes. Sterile urine in the presence of pus occurs in renal tract tuberculosis, sometimes with superadded pyogenic infection. The examination of the

genital tract and the rectum should be routinely done in a case of recurrent or chronic pyelonephritis. Diabetes mellitus is often complicated by the urinary tract infection.

Treatment: A thorough history and clinical examination are important before the administration of drugs. The scar tissue causes distoration of tubules, which further leads to urinary stasis. Hence it is important to maintain free urinary flow by ingesting large quantity of fluids, 6 to 7 points, per day, in the form of coffee, fruit juices, butter-milk and water. A surgically correctable lesion must be dealt with.

Chemotherapy: Preferably a broad spectrum antibiotic, for example, achromycin in 2-4 G. daily in divided doses is given for 10 days in an acute infection. In recurrent or chronic infections after ten days, the same drug in half the dose or sulpha drugs for a further period of two months may be continued. Elkosin, sulphamezathine or gantracin can be given in 4 G. daily dosage for the same period of time. Combination of penicillin and streptomycin may be given when the organisms are particularly sensitive to them. Furadantin has been successfully used in resistent cases due to proteus, psudomonas, streptococcus faecalis and aerobacter aerogenes. The aim should not only be to sterilize the urine but also to attack the bacterio which may still remain dormant in the interstitial tissue in chronic pyelonephritis. As in bacterial endocarditis, a combination of bactericidal drugs, i.e., penicillin and streptomycin may be more effective than the regime of treatment mentioned above and hence the importance of maintaining a steady plasma and tissue concentration of these bacterocidal drugs.

For anaemia, renal osteodystrophy and other complications, symptomatic treatment is required. It must be emphasized that each case of pyelonephritis needs individual treatment according to the variability of the disease.

Summary

In conclusion, pyelonephritis is not an uncommon disease. It requires an early recognition, a vigorous and prolonged treatment with frequent follow-up of the patient. It is advisable to maintain a free urinary flow and to correct a surgically operable condition. It is worthwhile to remember that pyelonephritis is completely treatable in early stages while it is not always easy to cure, once it has advanced to the chronic stage.

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DIABETES

SOME USEFUL INDIGENOUS DRUGS

By

Dr. A. R. GOVINDA RAO, M.B., B.S., M.S. (Yale)

Professor of Pharmacology, Madras Medical College.

ALTHOUGH the disease diabetes and its symptoms were clearly recorded by the early Hindu and Unani physicians, the corresponding reliable records on the lines of treatment followed by them are lacking. Many herbal remedies, individually or in combination in different formulations such as leaf, powder, pastes, decoctions and infusions, pills etc., have been recommended in various medical treatises during the peak period of Hindu medical progress. After that, Hindu medicine started to decline and many drugs not necessarily of tried value have crept into the core of early Indian materia medica mostly from folklore and hearsay evidences. It is therefore an almost impossible task to find out the most authenticated lines of treatment which had given really promising results in the hands of our ancient physicians in the treatment of diabetes.

In order to start a screening programme on the indigenous drugs useful in diabetes, we referred to various authentic books on indigenous plants and noted down the names that are likely to be of some value. In addition the author visited a number of villages and collected indigenous plants which were supposed to have antidiabetic properties and used mostly by village vaids, hakims and grand old ladies.

A proper evaluation of these claims on modern scientific lines has not been systematically attempted before. It was therefore felt that it would be worthwhile to look into the merits or demerits of these drugs mainly on experimentally produced diabetes like condition in laboratory bred rabbits and mongrel dogs got from corporation.

For production of diabetes in animals in additlon to the known method of Alloxon diabetes another method has been successfully developed in our laboratory which is as follows :

After partial pancreatectomy the animals were given insulin and allowed to recover fully for a period of 10 to 14 days, and then hypertonic glucose injections were given daily until the animals became fully diabetic. Even in normal animals which were not depancreatised, flooding blood with hypertonic glucose daily for a period of 4 to 6 WEEKS ; used to result in permanent hyperglycaemic animals and such animals also were used for experimental purposes.

Drugs :

(1) Allium Cepa Linn (Liliaceae)—Tamil : Vengayam, Kanarese : Nirulli, Hindi : Piyaz. Onion.

Chief composition : Essential oil allyl propyl disulphide ($C_6H_{12}S_2$)[1]. It contains dihydroxymaleic acid oxidase[2].

Pharmacology : The extract of the juice of onion was found to possess a marked hypoglycaemic activity when administered parenterally to fasting rabbits.

Oral administration of extracts of onion to rabbits and pancretectomized dogs causes a lowering of blood sugar. In

addition it was observed that the lowest values were obtained after 1—5 hours. The various active fractions lose their activity when kept for 1—10 days in the frigidaire despite addition of antiseptics.

Collip[3] obtained active extracts from gree tops of sprouting onion plants and from roots and bulbs which were found to be hypoglycaemic in their effect on animals.

(2) Allium Sativum Linn (Liliaceae)-Garlic. Tamil : Vallaippundu, Telugu : Velluli tellagadda.

Chemistry : Proteins 6·3, fat 0·1, carbohydrate 24·0, starch 8·22, calcium 0·03, phosphorous 0·31, iron 1·3mg., zinc 1mg. 30% Phosphorous is present as phytin and 65% as hexosemono-phosphate. Vitamin B_1 187u. Riboflavin 32u/100 G. niacin and vitamin C 5mg. A peroxide enzyme is also present.

Essential oil: allyl propyl disulphide 6% and diallyl sulphide 6%. Stoll isolated a crystalline odourless principle Allim. Carvillito obtained allicin.

Pharmacology : Laland and Havrivold[4] extracted from garlic an ether soluble steam volatile alkaloidal substance which when mixed with the disulphides found in garlic juice and injected into dogs and rabbits gave a hypoglycaemic reaction. This substance was not considered analogous to insulin.

(3) Coccinia indica wight & Arn (Cucurbitaceae) Cephalandra indica Tamil : Kovaikai. Kanarese: Thondekai.

Chemistry : Fruit contains protein, fat, fibre, carbohydrate, calc, phosphorous. 0·5% iron, carotene and vitamin C.

Pharmacology : The enzyme isolated from coccinia had amylolytic properties. Subcutanous injection of the drug in rabbits showed no marked effect on blood sugar[5]. The fruit juice is also ineffective.

But the water soluble fraction of the alcoholic extract of the roots brings down the blood sugar to normal or near normal in a majority of animals[6]. Glycosuria disappeared and significant improvement in the general diabetic status was noticed including an increase in weight of the diseased animals. The improvements persisted for 21-34 days following stoppage of treatment during which the animals were kept under observation.

In Bengal and Bihar it is a household remedy for diabetes.

(4) Eucalyptus globus labil. (Myrtaceae) Tamil Karpura maram.

Source : Nilgiris, Annamalai and Palani Hills.

Chemistry : Leaves yield 0·8 to 15% of a volatile oil consisting aldehydes, ketone and acids.

Semmler and Mayer obtained a crystalline camphor endesmol from the oil.

Pharmacology : The use of infusions of leaves in the treatment of diabetes was advocated by Faulds[7] and confirmed by Parez[8].

(5) Gymnema Sylvestre. (Asclepoidaceae.

Sanskrit–Ajashringi–Meshashringi. Tamil–adigam. Telugu : Podaptri, grows wildly all over India.

Chemistry : Resins–Hooper isolated 2 resins one insoluble in alcohol and the other alcohol soluble. Gymnic acid 6%. Power and Tutin have isolated gymnemic acid, quercitol and lentria contane.

Pharmacology : Mhaskar and Cains[9]- leaves cause hypoglycaemia in exeperimental animals which sets in soon after the administration by mouth or by injection. The hypoglycaemia has been explained on the assumption that the drug acts indirectly through stimulation of insulin secretion of the pancreas as it has no direct action on the carbohydrate metabolism. The leaves stimulate the heart and circulatory system, increase urine secretion and activate the uterus.

Therapeutics : Susruta has described it as a remedy for glycosuria and other urinary disorders. When the leaves of this plant are chewed the taste of sugar and other saccharine substances is abolished. It is also revealed that even the bitter taste of quinine is completely removed by chewing the leaves. 2 to 4 g. of dry leaf per day in divided doses is advocated to diabetics.

(6) Lochuera Rosea Reichb (Apocynaceae) (Vinca rosea lin)

Telugu : Billaganneru.

Chemistry : Amorphous alkaloid of the Rauwolfia type.

Pharmacology : According to Lee and Drew [10] there is no definite evidence that an infusion of leaves of v. rosea fed orally to normal rabbits produces a fall of blood sugar level.

Jones [11] on the otherhand reported that patients taking infusion showed definite decrease in glycosuria with a rise in blood sugar suggesting an increase tubular reabsorption of glucose.

We have tried the leaves of powdered root extracts in normal rabbits and dogs and could not detect any blood sugar lowering action. But in two human diabetics the powder was put in gelatin capsule and administered orally in 2 to 3 g. doses per day and after a week the urine sugar was definitely reduced.

So Vinca rosea may contain a powerful antidiabetic factor in admixture with other factors and useful only in human diabetics. Further investigation in this field is interesting and worth undertaking.

(7) Pterocarpus Marsupium Roxb (Leguminosae)

Sanskrit-Bandhuka Pushpa. Tamil-Kand miruga mirathum.

Source : The tree grows wildly in South India. Kino is dried exudation.

Chemistry : Tannin 4·2 % Pterostil bene crystallized.

Pharmacology : Ojha [12] found that an extract of the wood given orally is effective in lowering blood sugar in rabbits and diabetic patients. Maximum reduction occurs after 2nd hour. Urine sugar falls along with blood sugar. No toxic symptoms.

Wood has a reputation of possessing antidiabetic properties.

(8) Rivea Cuneata wight. Kanarese-Kallanagida.

Chemistry : The leaves yield glucosides.

Pharmacology : The glucoside was given orally to rats in daily doses of 5mg. dissolved in water, after 8 days they received subcutaneous injection of 200 mgm/kg of alloxan. At the end of 25 days, all the rats in the treated group had normal blood sugar and no sugar in urine. Mortality was 20% as compared to 60% in the control group. The treated rats had relapses after 30-40 days. A second course of treatment was beneficial in 10% of these rats. P. M. examination of pancreas in normal rats receiving the glucoside for 30 days and killed 30 days after treatment showed evidence of hyperplasia and hypertrophy of islets of Langerhans. Other organs appeared

normal. Toxicity test on mice showed that it is nontoxic even in large doses of 1·0 g/kg body wt.

(9) Scoparia dulcis linn (Scrophulariacae) Mundari — Gurara- Herb errect.

Chemistry: Amellin active principle 13.

Pharmacology: When amellin was injected daily at 10–12 mg/kg per day into hyperglycaemic rabbits caused by the repeated daily injection of sodium acetoacetate it reduced the blood sugar to normal. Insulin although it relieved the fasting hyperglycaemia initially, had little effect on hyperglycaemia in the later stages. Increasing the insulin doses in such cases caused death. Administration of amellin for 40 days returned the glucose tolerance to normal in sodium acetoacetate treated animals.

Diabetic patients treated with amellin showed after 6 months of urinary elimination of urea, uric acid and creatine and the initially high values of blood urea and blood creatine were reduced to normal values.

Amellin prevents tissue wastage and causes better utilization of protein. Although all patients had diets of high caloric value and carbohydrate content, there was a marked reduction of glycosuria and hyperglycaemia within one month of daily treatment with 15-20 mgm amellin. Unlike insulin, amellin does not cause the blood sugar level to go below normal and reduction of both blood and urine sugar occurs gradually. In certain patients relief was obtained in conditions associated with diabetes such as acetonuria, albuminuria and acidosis. Amellin treatment caused a reduction of fat from adipose tissue and promoted proper wound healing.

A daily dose of 15–20 mgm of amellin with calcium salts was shown to give relief from diabetes mellitus. Even the high cholestrol content associated with diabetes responded to amellin treatment after 2 to 10 months.

(10) Syzygium cuminii sheels (Myrtaceae) Jambolana—Jambul—Rose apple. Sanskrit: Jambuphala.

Pharmacology: The bark extract is considered to effect the glycogenolysis and glycogen storage in animals.

Therapeutics: A sterile aqueous extract of seeds caused marked and prolonged decrease in blood sugar lowering effect in alloxan diabetic rabbits.[15]

The Central Drug Research Laboratory, Lucknow reported recently that dried alcoholic extract of jaum seeds administered orally to diabetic patients reduced blood sugar and glycosuria. Our results corroborate the latter findings.[16]

Miscellaneous agents: Collip [17] extracted from the roots and sprouted grains of barley substances which were claimed to lower fasting blood sugar level of normal rabbits. He also found that extracts of green leaves and stems of beans were active hypoglycaemic agents.

Thalimer & Perry [18] found that raw potato juice was effective in lowering blood sugar in rabbits.

In a screening programme of drugs which are likely to be useful in diabetes, one has to adopt a criterion as the basis especially in animal experiments. The blood sugar lowering effect on both normal and hyperglycaemic animals have been adopted as a criteria for this programme. In addition to insulin and sulphonylurea derivatives, quite a number of plant products have been shown to be potent hypoglycaemic agents. But one

should not conclude from these observations that all of them would be useful in the treatment of human diabetes because a number of fallacies are likely to arise from such a surmise. The artificial hyperglycaemia and diabetic like condition produced in laboratory animals will not be the same as the disease diabetes in human beings. In addition a number of powerful hypoglycaemic agents in animals have been found to be either ineffective or too toxic in human diabetes. Added to this, it has been the experience of the author to find that some of the agents which were absolutely ineffective in lowering blood sugar in animal experiments, have been found to be beneficial in human diabetes. Until we know all the missing links in our knowledge about diabetes it will not be possible for anyone to explain the rationable or basis for the administration of one or a combination of drugs. However, further investigations in this fascinating field are sure to yield valuable information about a disease in which humanity is much interested.

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REPORT ON SOME CASES OF ERYTHROBLASTOSIS FAETALIS OR HAEMOLYTIC DISEASE OF THE NEW-BORN

by

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It had been already proved that majority of human population upto an extent of 95% in India are Rh. Positive, that is, their blood cells contain a particular factor known as Rhesus factor, This has no relation to and is quite independent of the usual blood groups A, B & O. Only about 5% of the population are Rh. Negative in India, when compared to 13·5% among the Europeans. It is this minority group that is giving us scientific trouble and we are going to discuss only one of such complications. When a minority group lady who is Rh. Negative marries an Rh. Positive man, the faetus of the pregnancy will in majority of the cases be Rh. Positive. Thus it means that the Rh. Negative mother is carrying an Rh. Positive faetus in her Uterus, which in turn will stimulate the production of Antibody in the mother. This Antibody known as Anti Rh. agglutinin flows back into the new-born infant at the time of delivery, and slowly agglutinates or clumbs with the Rh. Positive cells of the faetus. The agglutination may takes place during intrauterine life or at the time of delivery of the baby; and one of the three conditions known as Hydrops faetalis, Congenital anaemia or Icterus gravis may develop in the baby. These conditions are grouped together under the term 'Erythroblastosis faetalis' otherwise known as Haemolytic disease of the new-born. It is this latter condition of Icterus gravis that is commonly met with and this paper deals with six such cases successfully treated.

Icterus gravis can be easily differentiated from Physiological jaundice by (1) serological tests revealing that the mother is Rh. Negative, and her blood contains Rh. Antibodies. (2) the child is Rh. Positive and is anaemic with enlarged liver and spleen, and (3) the jaundice deepens more and more and its general condition deteriorates rapidly. But one should not wait for the development of jaundice either for diagnosis or for treatment. If the treatment is too much delayed a condition known as the Kernicterus develops as manifested by refusal of feeds, spasticity and convulsions; and then we may be contributing one more crippled member to the society or we may lose the child altogether. Hence diagnosis of the case should be made much before the actual delivery takes place and should make all the necessary arrangements for an exchange transfusion.

Jaundice may develop even at the time of delivery and the skin may assume a deep yellow orange colour within two or three days. This is the most severe form of Icterus gravis. But in the most common form the infant may appear normal at birth, although the spleen is occasionally enlarged; but Icterus usually appears within the first 12 to 18 hours and rapidly becomes

more intense. If an infant with true anaemia or suspected jaundice is delivered by an Rh. Negative woman whose blood contains Rh. Antibodies, the diagnosis of haemolytic disease is generally made regardless of the presence or absence of other symptoms.

The diagnosis of the case is usually done by the Obstetrician from the previous obstetricial history of the case, namely, first one or two children were normal and the subsequent one was either delivered and died of jaundice or ended in premature delivery or abortion. Sometimes it may be only repeated abortions alone without any full-term delivery. Hence as a part of routine investigation the mother is tested for Rh. also; and if Negative, her blood is repeatedly tested for the presence of Rh. antibodies in the serum as the pregnancy advances. If the mother is Negative and her blood contains Rh. antibodies, then it is certain that the faetus will be Rh. Positive and most probably is going to be affected by the Haemolytic disease. A positive Comb's test will confirm this. If we remember this condition and look for these cases, I am sure, we will be able to spot out more number of cases than the previous years.

Out of a series of six cases treated by us during the last two years in the hospital and outside, three cases confirmed to the classical history narrated above i.e. first child was alive and healthy, 2nd one was born and died within three days, 3rd was an abortion. This was the fourth pregnancy that was treated. Two other cases were simple repeated abortions and on casual examination of Rh. test it was revealed that the lady was Rh. Negative and husband was Rh. Positive. Further, Rh. antibodies were present in the blood of the mother and it increased in its titre with the advancement of the pregnancy. In one of these cases, the titre of the antibody was rising steadily month by month that a Caeserian had to be done two weeks before the term to save the child. An exchange transfusion was immediately done for the child. In the Sixth case of this series it was a very rare complication of A. B O incompatibility where both the mother and father were Rh. Positive. It was not a case of haemolytic disease of the new-born due to the Rh. incompatibility but was due to A B O incompatibility. The mother was O group and the child was B group and the father was group B. At the time of delivery of the child Beta agglutinin of mother's O group flowed into the child and got agglutinated with B cells of the child. Child was quite healthy when delivered, but on second day it developed jaundice. Immediately an ordinary transfusion was given to the child to raise up the R. B. C. count and haemoglobin percentage. Here there was no necessity for Rh. Negative blood since Rh. antibodies were not present in the child's blood. Jaundice gradually faded away and the child became alright within a week's time.

One point we would wish to stress in this connection is that in those conditions where the result of the set of investigations (viz. mother Rh. Negative father Rh. Positive and mother's blood contains Anti Rh. agglutinin etc.) prove that the new-born is likely to be affected with haemolytic disease, it is better to do a replacement transfusion straight away immediately after delivery, if there is no facility to do a Comb's Test immediately or it will take time to get the Test done.

The exchange transfusion should be done always with an Rh. Negative blood. Since Rh. Negative percentage of population in our country is very very small and to get an Rh. Negative blood of the particular group of that baby is impossible in an emergency, it is always easier to give Rh. Negative 'O' group blood. In all our series of cases we used only Rh. Negative O.

The Technique: The technique of the exchange transfusion is as follows. The apparatus required is simple and consists of two 20 cc. syringes, a four way adopter, a nineteen gauge needle and nine inches length of Polythene tube of ·5 mm. diameter. A bottle of Rh. Negative O group blood of about 400 c. c. is obtained as usual. The bottle of blood is fitted with a standard giving set and hung beside the infant who is placed on a table and covered with sterile towels. The needle whose point fits into the Polythene tube is fitted on to the four way adopter. The opposite limb is fitted to the syringe. To the two side connections are fitted the transfusion sets rubber tubing and a free rubber tubing for the discarded blood. After cleaning and sterilising the umbelical cord, it is cut across to identify the vein. The Polythene tube is pushed upward gently through the vein, if necessary, after a preliminary probing of the vein. Some resistance is encountered at the level of the abdominal wall. By a little manipulation of catheter it will often pass onward and at about 4" length it will enter the inferior Venacava.

The syringes are washed in Heparin saline solution or even citrate solution, and then 20 c. c. of the baby's blood is withdrawn into the syringe and discarded; then 20 c. c. of Rh. Negative blood are drawn from the bottle and injected slowly into the baby. The syringes are changed for every withdrawal. This procedure is continued until all the 400 c. c. of blood had been exchanged. The child is then put on antibiotics, Vitamin K & C and Calcium. The whole process takes about three to four hours. It must be remembered that the umbelical vein will be patent for this technique upto about six hours after delivery. If the case happened to be seen after six hours one of the femoral vein can be dissected out into which is introduced the Polythene tube.

It has to be pointed out that one possible danger of carrying out an exchange transfusion in this way is that of Air embolism. But this danger is not there if we use the Polythene tube which is transparent. If any air enters the tube it can be immediately withdrawn into the syringe.

Since the blood volume of the newborn infant is about 400 c.c. for an average baby; an exchange transfusion of about 400 c.c. of blood will effect a 90 percent substitution, that is to say, at the end of the transfusion 90% of the erythrocytes in the infant's blood will be Rh. Negative Thus it will be seen that it is only a question of diluting the blood of the child with Rh. Negative blood. By this means we are not converting the Rh. Positive child into an Rh. Negative one. When the child begins to regenerate its own blood it will be definitely Rh. Positive.

Our thanks are due to the Dean, Govt. General Hospital, Madras for the kind permission to publish some of the hospital cases.

RECENT TRENDS IN EAR, NOSE, THROAT DISEASES

by

Dr. U. ANANDA RAO, M.B., B.S., D.L.O. *Madras.*

It is not my intention nor my desire to confuse you or confound you with the several details of Ear, Nose, Throat problems, but I shall strive to give you a cogent and clear idea of the strides that Medicine has made in this speciality which at one time was considered a small speciality but no longer remains so.

Time was when the field of Ear, Nose, Throat consisted of detecting enlarged tonsils and removing them, whether they deserved to be removed or not with the result that the satirist George Bernard Shaw made one of the cryptic remarks that "tonsils were created by God so that Throat Surgeons could ride in Cadillac Cars". Much water has flown under the bridge since then and the field of Ear, Nose, Throat has opened up so wide that it can rightly claim as one of the few specialities where remarkable progress has been made and is still being made to find out the cause of so many rare and confusing diseases which hitherto were in the realm of the unknown and ill-understood. This will readily be understood when we realise that basically, the E. N. T. specialist works in a very confined space. Little was known as to what was contained in these spaces and the physiological laws governing the confined spaces. But the advance of science and the evolution of newer and sounder methods of diagnosis have thrown up these small spaces to a discerning mind with all their intricate mechanisms so that we can proudly say that we are slowly but surely gaining an insight into the hitherto virgin land.

Medical specialities as we know them are of surprisingly recent origin. In the middle ages there developed a sharp division between Physicians and Surgeons. The Physicians regarded themselves as more highly educated and looked upon the Surgeons as mere craftsmen belong ing to the barber - surgeon guilds. By the end of the 18th century, the connection between barbers and surgeons had been severed by Royal Decree and the social status of the surgeon had risen in dignity to the level of Physicians. Meantime there was a third class of practitioners, held in very low esteem by the physicians and surgeons. These were the itinerant quacks, for the most part uneducated persons who fitted glasses, pulled teeth and performed operations for cataract, bladder stone and hernia.—that the regular surgeons avoided "because of their uncertain nature".

By the beginning of the 19th century, regular surgeons now assured of their social status, began to take an interest in diseases of the Eye and Ear. The regular surgeons who staffed the bigger hospitals preferred not to be called specialists for being confused with the itinerant oculists. Three factors however conspired against them. First was the rapid expansion of medical knowledge that gave a strong impetus toward the divisions of labour that were called specialities. Another was the invention of new diagnostic and therapeutic instruments requiring special skill for their use. The third and perhaps the most inescapable factor leading to the divisions of medical practice into specialities, was the growth of Cities and improved transportation so that the public could choose from a large number of accessible doctors the one who had achieved reputation and fame in a particular field.

Probably no phase of medical practice is changing more rapidly as a result of

advancing knowledge than is Otolaryngology. A scant 20 years ago the largest part of our concern was the suppurative infections of the Head and Neck that often required surgical intervention to prevent intracranial extension. Thanks to sulphonamide and anti-biotic therapy, the need for sinus and mastoid surgery for acute infections has been almost, but not quite, eliminated. The largely destructive surgery of the past has been replaced by the more fascinating and gratifying reconstructive surgery for deafness, by Maxilofacial plastic surgery and by the increasing surgery for malignant tumours of the Head and Neck.

It has been estimated that 25% of the time of the general practitioner is concerned with the diseases of the respiratory tract. So, it can safely be said that the average general practitioner is a quarter of an E. N. T. specialist.

So then, we shall commence with the different organs of this speciality :—

The Nose: By far, the commonest, Nose problem the average practitioner sees in his daily practice, is *the common cold.* Practically speaking, I for one do not believe that the common cold is as common as it sounds or as cold as it seems. I do feel that this is one of the greatest challenges which each one of us has to face whether as a Doctor or as a patient sometime or the other. The prevention of the common cold has been the subject of much study and few concrete results. A satisfactory method of vaccination against the virus of the common cold has not been achieved. Vaccination by bacterial vaccines made of the secondary invaders given by mouth or injection has failed to reduce the incidence or severity of colds in carefully controlled series. Avoidance of exposure to the infectious droplets is desirable but difficult.

The Treatment of the Common Cold: Non specific measures to prevent the common cold include the avoidence of chilling and fatigue. Since chilling is greater after being over-heated, over-heating of dwellings and too much heavy clothing are to be avoided. The vaso motor tone may be improved by daily cold showers to lessen the susceptibility to chilling. The treatment of the common cold is first and foremost *Rest.* Rest of the body preferably in bed, and rest of the infected organ by supplying the nose with warm, moist, clean air, thus relieving it of its task of air-conditioning. Isolation is important to protect others, but is rarely observed. Sulphonamides and anti-biotics have no effect on the virus infection and are of value only for the complication due to the secondary bacterial invaders. Codeine and Papaverine, $\frac{1}{4}$ gr. each, every 4 hours for 4 or 5 doses, seems in some cases to abort the common cold if given within the first 24 hours—perhaps by inducting rest. Nose drops to reduce the congestion of the nasal mucosa are of symptomatic but of doubtful therapeutic value. Ephedrine, $\frac{1}{2}$% in normal saline or Neosynephrine, $\frac{1}{8}$% in normal saline, a $\frac{1}{2}$ dropper full warmed may be dropped into each nostril with the head hyper-extended, 3 times a day, for nasal blocking.

Acute Sinusitis Is the most frequent complication of the common cold and it is due to a secondary invader, most often the pneumococcus or streptococcus causing an inflammation of the mucous membrane lining of the sinus, with oedema and swelling at the osteum, resulting in retained secretion. Acute sinusitis may involve one, several or all of the nasal accessory sinuses. Since it is due to the secondary invaders of the common cold, it occurs only after the first several days of the virus stage of the cold. The treatment of acute sinusitis consists of rest, nasal shrinking to promote drainage of retained secretion and specific chemotherapy with sulphona-

mide, Penicillin, or other anti-biotic indicated by cultured sensitivity tests After the first week, if symptoms persist, therapeutic irrigation of the sinus with Penicillin in normal saline 2,000 units per c. c. will shorten the infection.

Fracture of the paired nasal bones that form the bridge of the nose, usually includes depression with flattening of the bridge or lateral displacement, with the separation of the articulation between the maxillary bones and nasal bones. The diagnosis is made by the obvious external deformity. Crepitation may be elicited but manipulation and x-ray examination is valuable. Treatment consists in replacement of the displaced nasal bones, done, if possible within a week of the fracture; thereafter reduction becomes extremely difficult. If the nasal fracture is part of the general head trauma manipulations about the nose should be delayed until it is definitely established that no injury to the brain exists.

Deviated Nasal Septum: Developmental or traumatic is extremely common and requires treatment only when it results in obstruction to nasal breathing. Most of the nasal obstructions are allergic and not due to a deflected septum. The treatment of deviated septum is sub-mucous resection of the deviated bone and cartilage that requires a trained Rhinologist. Properly performed when it is truly indicated, the results are excellent.

One of the popular nose operations that has caught the fancy of women in recent times, particularly in the United States of America, is Rhino Plasty. This operation consists in changing the size and shape of the external nose. The external nose is the most prominent feature of the face and profoundly affects the facial appearance and expression. Nasal plastic surgery, once the domain of the semi-quack, is a highly respected aspect of Rhinology. It should be undertaken only by the Otorhinologist thoroughly trained in maxillo facial plastic surgery.

Furuncle of the nose is due to the infection of a hair follicle of the nasal vestibule with the hemolytic staphylococcus virus. A red, warm, tender swelling of the nasal tip with a point of maximum tenderness over the affected hair follicle makes diagnosis easy. *The treatment is strictly conservative.* Incision or squeezing are to be shunned, because of the very great danger of freeing infected emboli into the angular vein and cavernous sinus with the often fatal cavernous sinus thrombosis. Moist heat and chemotherapy with careful cleansing of the pus from the vestibule when spontaneous drainage occurs, are all that are necessary.

Epistaxis or bleeding from the nose is the result of trauma or a systemic disease such as hyper tension, leukaemia, aplastic anaema, hemophilia, purpura or rheumatic fever.

The great majority of nose bleeds come from a plexus of arterioles on the anterior end of the septum (Kiessel Bachs area.) Most of these are readily controlled by a large piece of cotton, dried or moist with hydrogen peroxide or dilute adrenaline (1 in 10,000) inserted into the nostril with pressure applied outside between the thumb and the forefinger.

Pharynx: Amongst the diseases of the pharynx, perhaps none holds the field as prominently as the problem of the tonsils and adenoids. The modern thinking on this problem is that tonsillectomy and adenoidectomy should be performed when the tonsils and adenoids are the seat of a chronic infection which produces or threatens to produce bodily injury greater than the danger, disability, discomfort and inconvenience of removal. Routine removal of tonsils and adenoids

in children is to be condemned as entirely unnecessary and as subjecting the child to the risks of surgery without any assurance of benefit. Moreover, the probable protective function of Waldeyer's ring against infections entering through the nose and mouth, may be impaired by removal of normal tonsils and adenoids. In adult life, the tonsils have no function.

Tracheotomy is a life saving procedure which has been in employ for 2000 years to bypass an acute or chronic laryngeal obstruction. Such an obstruction may be due to an infection, for example laryngo tracheo bronchitis a foreign body, oedema, tumour, tuberculosis or paralysis of both recurrent laryngeal nerves. *In an acute obstruction,* the patient becomes cyanotic and develops a characteristic laryngeal stridor which is chiefly inspiratory as contrasted with the expiratory wheeze at lower respiratory obstruction as in asthma. As the patient struggles for air, the accessory muscles of respiration (Inter costal and neck) are brought into use and there is marked retraction of the inter costal spaces and of the clavicular fossae. In recent years tracheotomy has also been used successfully in the treatment of secretory obstruction of the lower respiratory passages. Patients with bulbar poliomyelitis, tetanus, brain injury, drug poisoning, crushing chest injuries, myasthenia gravis, blast burns etc., often develop a secretory obstruction of the trachea and the bronchi leading to death from asphyxia. The physiologic therapy consists of restoration of the air-way with facilities for constant removal of secretions ; in prolonged obstruction, this is best accomplished by a tracheotomy.

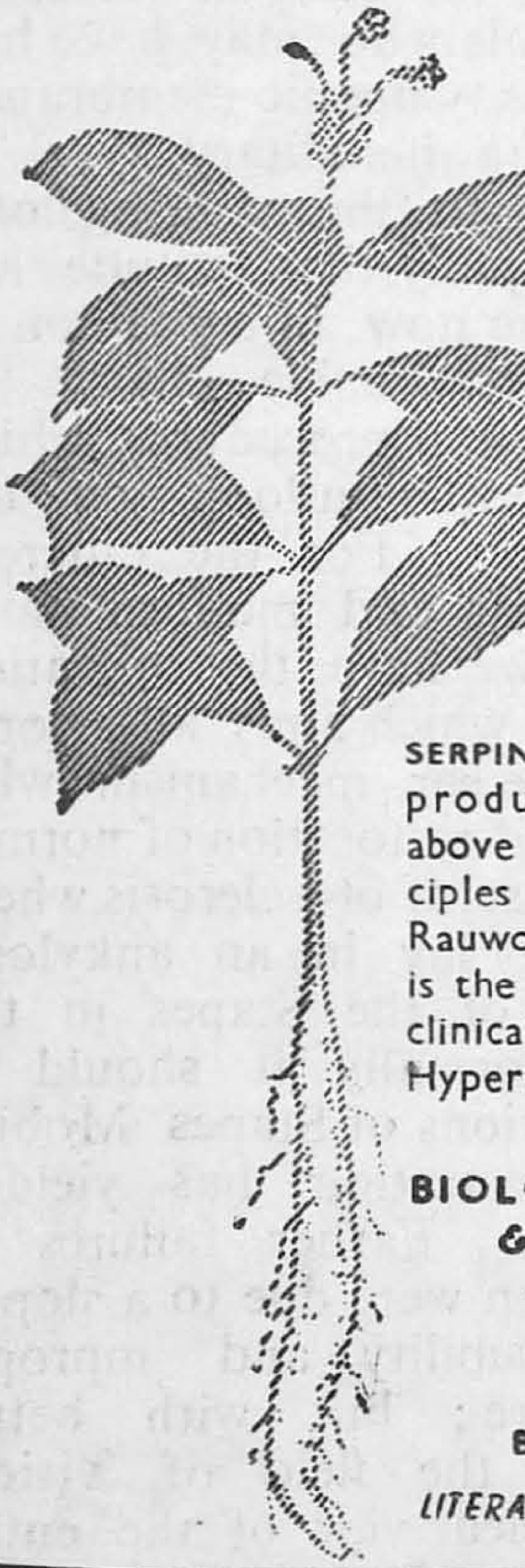
Ear : Now I come to the most fascinating chapter in the domain of Ear, nose, Throat diseases. namely the problem of Deafness. In the recent past, I will be correct if I say within the past 10 years, no other part of the Human body has received such a close and scrupulous attention as the organ of hearing ; and the main problem that it presents, namely, the problem of Deafness. The hearing handicapped to day is as much an invalid as the blind, the lame and sick. To see everything, to smell and to feel, but not to be able to comprehend what is spoken or hear the sound of music or melody is a handicap which is driving several of the sensitive beings belonging to this class nearly crazy. So it is with a certain amount of optimisim that we look upon this chapter today which has opened up a new horizon to these handicapped individuals and in the near future promises even more to cure them of the malady.

It has been the lot of some of us to advice these people who may have had perforations of the tympanic membranes, or otosclerosis (a hereditary type of deafness) to resort to the wearing of a Hearing Aid. Happily that attitude has changed and we are now in a position to predict with a reasonable chance of success certain surgical procedures which has put a different outlook on the problem of deafness. For the different types of perforations and malformations of the middle ear we have the operation of Tympanoplasty which aims at reconstructing the middle ear mechanism with the ultimate goal of restoration of normal hearing. In the case of otosclerosis where the basic pathology lay in an ankylosis of the foot plate of the Stapes in the oval window (normally it should be mobile) the operations of Stapes Mobilisation and Fenestration has yielded gratifying results. Earlier failures in Stapes Mobilisation were due to a sloppy technic, poor visibility and improper postoperative care ; but with better magnification of the field of vision, which includes a clear view of the entire foot plate of the Stapes and better methods of technique consisting of what we call peri basal lysis of the foot plate an adequate pre and post-operative care,

the percentage of success has gone up considerably.

My recent visit to the United States of America and the training I received in the new types of techniques in the field of Ear, Nose, Throat surgery have convinced me beyond doubt that it is not sky-scrapers or a million gadgets that we need for success in our surgical procedures, but a proper appreciation and evaluation of each individual case and meticulous adherence to certain basic anatomical and physiological laws combined with greater attention to surgical care, that with the given brains and available facilities, we should equal if not surpass the successes that are being repeatedly claimed by other countries, with the wealth of material available in this country itself.

Conclusion: I have tried to review briefly certain common Ear, Nose, Throat ailments met with in general practice and the modern trends in the diagnosis and treatment of the same. In the brief time allotted to me, I could not do better or go into greater detail. If this little talk has been helpful in understanding modern thinking in the problem of Ear, Nose, Throat diseases, my efforts will not have been in vain.



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ROLE OF PLAIN RADIOGRAPHS IN THE DIAGNOSIS OF CONGENITAL HEART DISEASES

by

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"THE importance of precise diagnosis of congenital heart lesions has been brought into a focus since surgical correction for many of these lesions has become a reality".

Following are some of the lesions amenable to surgery. *Cardiac lesions that can be corrected.*

TABLE I

1. Co-arctation of the aorta.
2. Patent Ductus Arteriosus.
3. Inter atrial Septal defect.
4. Interventricular septal defect.
5. Atrio ventricularis Communis.
6. Pulmonary Stenosis.
7. Total Anomalous Pulmonary Venous Return.
8. Tetralogy of Fallot.
9. Partial Anomalous Venous Return.
10. Aortic ring.
11. Cardiac tumors.
12. Aortic Pulmonary Window.
13. Congenital Ventricular Aneurysm.

TABLE II

Cardiac lesions that can be ameliorated

Tricuspid Atresia
Aortic Stenosis
Mitral Stenosis.

Developmental

Transposition of the Great Vessels.
Single Ventricle.
Mitral Insufficiency.

Roentgenologic evaluation of congenital heart lesions is the most important single tool available. However this field has been considered in the past, a particularly difficult and even exasperating area because of the multiplicity of diagnostic possibilities and lack of pathognomonic signs. The purpose of this article is to suggest a method of analysis of fluroscopic and radiographic findings.

This approach is based on the roentgen manifestations of pathologic anatomy and physiology and is an attempt to relate the pathology to the films. The emphasis on this article will be the conventional roentgenologic examination utilising the tools available to all radiologists. Except a brief mention to indicate the place of special technique such as angiocardiography, retrograde aortography, selective cine-angiocardiography and cardiac catheterization, no discussion of these special techniques is attempted. It is essential to correlate carefully, the objective Roentgen findings with those obtained by history, physical examination and electrocardiography.

Classifications. The usual clinical classifications of heart disease is to divide it into acquired and congenital types, and within the congenital variety *cyanotic and acyanotic groups.* This is Maude Abbot's Classification. The advantage of this division into cyanotic and acyanotic types is that it separates the patients into great physiological groups. Clinical cyanosis indicates

systemic oxygen desaturation. However there are several disadvantages to this classification from the clinical and particularly from the radiological point of view.

(1) Five grams per cent of desaturated blood must be present in the peripheral circulation before the patient is visibly cyanotic.

(2) Some patients with acyanotic heart disease may be cyanotic as a result of failure of other mechanisms. In a series of thirty infants under the age of one year with severe coarctation of the aorta half had a history of cyanosis.

(3) Finally cyanosis is not a radiological criterion and in many cases one cannot be certain as to be presence or absence of cyanosis when fluoroscopying or viewing films.

Hence a classification has been devised by the Minnesota School of Radiologists that permits an objective division into groups on the basis of roentgen criteria.

Thus patients with congenital heart disease are divided into groups according to the pulmonary arterial vasculature that is increased, normal and decreased pulmonary arteries.

This classification, too is based on an important physiological differentiation namely, the blood flow through the pulmonary vascular circuit. All patients with decreased pulmonary vasculature are peripherally desaturated and are in the cyanotic group. All the patients in this group have shunts from the right side of the heart into the systemic circulation (Decreased Pulmonary vasculature—cyanotic).

(1) Tetralogy of Fallot.

(2) Tricuspid Atresia.

(3) Trilogy of Fallot.

(4) Pseudotruncus Arteriosus.

(5) Primary Pulmonary Hypertension with patent Foramen Ovale.

(6) Ebstein's with IASD.

All patients with normal pulmonary vasculature are fully saturated and are in the acyanotic group. There is no appreciable shunt of blood from one circuit to another in this group.

(1) Coarctation of the aorta.

(2) Aortic stenosis.

(3) Congenital mitral stenosis,

(4) Cortriatriatum.

(5) Dextrocardia.

(6) Congenital Ventricular Aneurysm

(7) Anomalous origin of the left coronary artery.

(8) Aortic ring.

Within the group of patients with increased pulmonary vasculature there is a sub division of significance from the point of view of differential diagnosis. One group, by far the largest, has increased pulmonary vasculature as a result of an intra cardiac or extra cardiac left to right shunt. In this group there is no peripheral desaturation and no cyanosis. There is enlargement and convexity of the main pulmonary artery segment.

The following are the main lesions in the group of increased pulmonary vascularity.

1. *With left to right shunt.* (acyanotic)

(1) Inter atrial septal defect.

(2) Inter ventricular septal defect.

(3) Patent ductus arteriosus.

(4) Partial anomalous Pulmonary venous return.

(5) Atrio–ventricularis communis.

(6) Aortic Pulmonary window.

(7) Ruptured sinus of valsalva.

(8) Corrected transposition with left to right shunt.

(9) Lutembacher's syndrome,

2. The second group is made up of admixture lesions where oxygenated and deoxygenated blood is mixed together, the resultant blood going both to systemic and pulmonary circuits-cyanotic. In truncus arteriosus for example blood from both left and right ventricle is ejected into a common trunk vessel before passing into either the pulmonary artery or the aorta distal to this point. The following are the chief admixture lesions.

Increased pulmonary vasculature — admixture cyanotic.

(1) Transposition of the great vessels.

(2) Truncus arteriosus.

(3) Single Ventricle.

(4) Cor biloculare.

(5) Taussig-Bing Anomaly.

(6) Total anomalous venous return.

(7) Tricuspid artesia with transposition of the great vessels.

But Transposition of the great vessels and truncus arteriosus are the two most common admixture lesions.

In the third group also demonstrating increased pulmonary vasculature and with desaturation or cyanosis there is right to left shunt of blood on the basis of pulmonary hypertension. The chief lesions under this group is reversing patent ductus arteriosus and (2) Eisenmenger's Complex.

A classification of lesions in this manner is of great help in considering the differential diagnosis of heart lesions in children. However there may still appear to be a bewildering number of diagnostic possibilities.

" All that is usually necessary in order to arrive at a clinical diagnosis is to correlate the History, Physical, fluroscopic, roentgenologic and electrocardiographic findings " (Gasul).

Consideration of specific congenital heart lesions.

Lesions with increased pulmonary vasculature on the basis of left to right shunt constitute more than 50% of all the patients with congenital heart disease. Mostly it is made up by the four common left to right shunts namely interventricular septal defect (20%). Patent ductus arteriosus (12%) Interatrial septal defect (11%) and atrioventricularis communis (4%). All cases of left to right shunt with the exception of corrected transposition show enlargement of the pulmonary artery segment as well as of the branch arteries. This enlarged pulmonary artery segment helps one to differentiate these group from the admixture lesions in which the pulmonary artery segment is usually although not invariably is relatively flat or concave.

Patent Ductus: When characteristic mechinary murmur accompanied by systolic thrill is present in about $\frac{1}{3}$ of these cases the clinical diagnosis is usually easy. It constitutes 12% of congenital heart disease. Plain x-ray signs: relatively large aortic arch. While sometimes it may be difficult to appreciate in films in childhood age, fluroscopy usually demonstrates a large, actively pulsating aorta. Right ventricular enlargement will be present, moderate enlargement of the left ventricle and often left atrial enlargement. (In questionable cases either retrograde aortography or cardiac catheterisation may clinch the diagnosis (*Angiocardiography*, show localised dialatation of descending aorta, directed towards pulmonary artery in L. A. C. position), Enlarged pulmonary artery segment with increased pulmonary vascular markings.

Inter ventricular septal defect. Maladie Roger. Most common of left to right shunts - 20% of congenital heart disease as per Minnesota School of Radiology. As an isolated defect it is usually symptomless but has distinctive

sign of a rough systollic murmur occasionally accompanied by a thrill in the 3rd and 4th left interspace. X-ray signs pulmonary artery segment enlarged (convex) increased pulmonary vascularity. Aorta appears small, inconspicous and inactive thus differentiating from patent ductus. Some enlargement of right ventricle There may be left auricular enlargement separating from inter atrial septal defect (Angio may show re-opacification of right ventricle after 5 seconds.)

Inter atrial septal defect. According to Minnesota School forms about 11% of congenital heart cases. According to Bedford, the commonest of congenital heart disease. It is due to defective union or malformation of all the three embryonic layers forming the inter atrial septum in contrast to patent foramen ovale which occurs in 30% of necropsies.

1. Presence of cardiomegaly chiefly to the left due to displacement of left ventricle by enlarged right ventricle and right auricle but no enlargement of left auricle. No enlargement of aorta.

2. The pulmonary artery segment show gross dialatation giving rise to the characteristic appearance of this condition. Main trunk of pulmonary artery as well as secondary and tertiary branches are enlarged.

3. The right main branch show gross dialatation and forms a large dense, often comma shaped shadow at the right hilum.

4. Increased pulsation in the pulmonary vessels and occasionally the hilar dance due to pulmonary insufficiency (when complicated by rheumatic mitral disease Left Auricle enlarges and forms the lutembatcher's syndrome.)

In atrio-ventricularis communic, heart catheterisation shows a shunt at the atrial level.

Admixture lesions: Increased pulmonary vasculature. But there is the flat pulmonary segment mostly due to malposition of the great vessels.

Transposition of the great vessels and truncus arteriosus are the two most common admixture lesion. Differential diagnosis between these lesions by conventional roentgen methods may be very difficult.

In classical cases of transposition in infants show a strikingly narrowed base of the heart which is due in partly to the altered relationship of the great vessels to one another and partly due to striking absence of thymic tissue.

Truncus arteriosus usually presents as a large vessel from the heart and pulmonary artery may at times be seen to arise from the trunk.

Reverse patent ductus and Eisenmenger's complex in this group show a large pulmonary artery from the right to left shunt through the defect due to pulmonary hypertension. Confirmation is by angiocardiography.

Lesions with normal pulmonary vasculature

Congenital heart diseases in this group are coarctation of the aorta, subendocardial fibroelastosis, isolated valvular pulmonic stenosis and aortic stenosis. The most common lesion in this group is the coarctation of the aorta.

This is a stenosis of the aorta at its isthmus, that is where the ventral and dorsal aortae meet in foetal life and also where the ductus arteriosus enters the aorta. There is the infantile and the adult types. Ascending aorta may be markedly enlarged, aortic knuckle small or absent, greater hypertiophy of the left ventricle and notching the lower borders of the ribs (4th to 8th ribs mostly) (Rosler's sign) are the roentgen

signs in plain radiography in the commoner types. The notching of the ribs is rare in children under 6 years. There are 3 clinical signs where Radiological signs are not conclusive.

(1) Loss of femoral pulse which is early and constant.

(2) The demonstration of collateral circulation via the intercostals by bending the patient forward and viewing the back in good light.

(3) Dialatation and expansile pulsations of brachio cephalic vessels—Retrograde aortography is the radiographic procedure of choice for precise diagnosis of this lesion.

In some cases there may be associated patent ductus arteriosus or interventricular septal defect where increased arterial vasculature is seen.

In the infant age group subendocardial fibroelastosis is indistinguishable from coarctation. But restrograde aortography is normal in these cases.

In isolated valvular pulmonary stenosis show right ventricular enlargement and marked post stenotic dialatation of the undivided pulmonary artery. In later stages of this disease there may be relative or even absolute decrease in the size of pulmonary arterial vessels, it is good to remember that in most cases, pulmonary vasculature is normal in this disease.

Lesions with decreased Pulmonary vasculature

Patients with decreased pulmonary vasculature have a right to left shunt and are cyanotic. Tetralogy of Fallot and Tricuspid atresia are the frequent lesion met in this group. Trilogy of fallot occurs less frequently. The most important lesion in this group is the tetrology of fallot which consists of pulmonary stenosis usually infundibular, a high interventricular septal defect, a functionally overriding aorta and right ventricular hypertrophy (Aorta may be normal in position anatomically and the apparent overriding is due to high interventricular septal defect in the presence of right ventricular enlargement). In plain radiographs the following points may be noted.

(1) Heart size may be normal or there may be enlargement towards the left due to displacement of left ventricle by enlarged Right Ventricle. Apex may be lifted above the diaphragm and the heart may be bootshaped.

(2) Concave pulmonary artery segment in addition to decreased pulmonary vasculature due to *pulmonary* stenosis.

(3) In about ¼ of the cases there is a right sided aorta 75% of congenital heart disease with cyanosis is tetralogy of fallot.

Tricuspid atresia is the next lesion in this group in order of frequency. Right atrium is markedly enlarged causing an enlargement of the heart towards the left, and right ventricle is small. Most often this lesion is associated with an atrial septal defect.

Flattening of the right border of the heart described by Tausing may not always appreciable. Right to left shunt may result in enlargement of right atrium, left atrium, and left ventricle.

Another less common lesion in this group is the triology of Fallot which consists of interatrial septal defect and pulmonary stenosis usually valvular with a right to left shunt at the atrial level. Cardiomegaly is marked,pulmonary artery segment is not concave but may be mildly convex. There may be left atrial enlargement. Aorta is not

strikingly enlarged and right aortic arch is rare. It is impossible to distinguish this lesion from Tetralogy on conventional films. Angiocardiography will show the shunt at the atrial level.

Summary

A careful analysis of the roentgen findings in plain radiographs along with fluroscopy gives a great aid in the diagnosis of congenital cardiac lesions. Only in doubtful and difficult cases need advanced specialist investigations as angiocardiography, cardiac catheterisation and retrograde aortography need be resorted to. In this method of examination of plain radiographs division of patients into various groups depending upon the appearance of pulmonary vasculature has been found to be most rewarding. This method of analysis has been brought into forefront by Drs. Rigler, Richard Lester and their associates from the Minnesota School of Radiology whose findings I have fully used. Precise diagnosis of congenital heart disease has become very necessary since many of these lesions can be surgically corrected or ameliorated. This method of the analysis of Roentgen findings in conjunction with other clinical data will provide a valuable working diagnosis in congenital heart diseases.

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EARLY DIAGNOSIS OF CANCER

By

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It is usual to say that Cancer is a dark disease, ill understood and uncontrolled. This might have been true a decade ago but it is certainly not so today.

Cancer has been defined in many ways, as uncontrolled purposeless growth etc, etc., These definitions are in my opinion not entirely correct, for cancer is not entirely uncontrolled and definitely not purposeless. The cancer cell carries in itself, the essential characteristics of all life, namely to perpetuate its species and to survive.

Cancer though apparently evil in the limited vision of man, need not necessarily be so when viewed from the broader view point of evolution. It is an inherent characteristic of all living cells to suffer mutations and evolve cells with different characters and stronger survival power. It is very probable that the cancer cell is such a random mutation, a defensive reaction elicited by the impact of harmful extrinsic forces, intended to create a stronger race but unhappily and unwittingly causing the very result that it was intended to prevent.

Viewed from the background, it will be obvious that Cancer is not a disease that can be prevented, for though the carcinogenic factors could be controlled in some cases, not all of them will be in our power to eliminate. We cannot control a background of cosmic radiations nor can we control the metabolic aberrations, endocrine or otherwise, that can happen in the human system.

It is, therefore, of paramount importance that Cancer, though in itself bearing no malice is yet a foe to be combatted. The fundamental element in the fight against Cancer is the prevention of metastases. We have not yet reached the stage where we are able to control the occurrence of metastases and therefore it is essential that we should act before metastases can occur.

This brings us to the purpose of this paper, " early diagnosis ". An analysis of 202 cases of Carcinoma of the oral cavity carried out a year ago, revealed the following tragic figures.

i.	Early ..	8%
	Late ..	92%
ii.	Metastases : Lymphnodal	100%
	No lymphnodal metastases	0%
iii.	Supraclavicular	6%
	Bilateral	27·5%
	Fixed	23·5%
iv.	Blood stream metastases	2·5%

The following gives you the figures of fiveyear results in Carcinoma breast and the Uterine cervix in cases with and without lymph nodal metastases.

Five Year Cure.

	Lymph node free	Lymph node metastases.
Marie Curie Uterine Cervix	77·27	24·9
Breast Cade	87%	29%

These figures make the need for an early diagnosis self evident. It would be wiser at this stage to clarify the concept

of early diagnosis. I would consider it early enough if a cancer can be diagnosed before it has spread beyond the tissue or organ of its origin or disseminated to lymph node or via the blood stream. Cancer of the oropharyngeal cavities, the uterine cervix and the breast constitute 76% of all cancers in our state and these are cancers which unlike the leukaemias, are essentially local diseases at the outset. A diagnosis of these diseases in the stage that I have defined would eliminate nearly 70% of Cancer deaths though not the incidence.

In recent years, the concept of early diagnosis has been still further extended to states of pure intraepithelial alterations. But it is my experience that not all apparently intraepithelial malignancies progress to established cancer and quite a few of them can be reversed by what is usually called conservative treatment. I would, therefore, not proceed to radical treatment in the pure intraepithelial malignancy. I would eonfine the term early to the limits of my original definition.

It is an unfortunate fact that in our country an early case is a rare phenomenon. The responsibility for this is certainly the ignorance of our people, but an analysis of our case histories has revealed that the medical profession is not entirely blameless.

Responsibity for Delay in Diagnosis

Patient's ignorance	70%	approximately.
Family Physician	25%	
Physician consultant	5%	

It is therefore, our foremost duty to rid ourselves of our weaknesses whilst striving at the same time to dispel the ignorance of the people.

The early diagnosis of Cancer, in the vast majority should not present any insurmountable difficulty. A careful clinical examination, a rectal examination, a vaginal examination, a careful intraoral examination, a simple biopsy or a smear are all that are necessary to make a diagnosis. The following will give you examples of what devastating consequences could ensue from a mild neglect of a simple examination procedure.

Temporising Treatment.

1.	Carcinoma of the Rectum treated as Amoebic dysentery	18%
2.	Carcinoma of the Rectum treated as Piles;	8%
3.	Carcinoma of uterine cervix treated with hormones	45%
4.	Carcinoma of Stomach treated as peptic ulcer	80%
5.	Carcinoma of Penis or Mouth treated as Chronic ulcer with antibiotics	96%

I need not elaborate further on the technic of a rectal or vaginal examination. But there are two studies which are easy and simple office procedures and at the same time of the greatest value in an early diagnosis. The first is the biopsy. For a diagnostic biopsy from the mouth, skin, or anal canal or cervix, no anaesthesia is necessary. A quick firm bite and the procedure is over. The piece thus removed has only to be placed in a penicillin vial containing 3% formalin in normal saline (about 2 ccs. of commercial formaline to 10 ccs. of saline). The bottle could then be sealed and sent to the nearest pathology laboratory. The Cancer Institute would only be too glad to place its facilities for such diagnostic work at the service of the profession. In this connection, I cannot condemn emphatically enough the habit of placing such material in rectified spirit or in normal saline;

The other procedure is the study of the smears of secretions from the offending sites. The smear technic as it has been called is of the greatest value in the study of the uterine cervical cancer and to a lesser extent in the diagnosis of bronchogenic carcinomas. The procedure is a very simple one where the uterine cervix is concerned. A speculum inserted in the vagina, a good brushing of the uterine cervix and the surrounding region with an ordinary paint brush. pressing the secretion on to a slide and placing the slide in a mixture of equal parts of ether and rectified spirit is all that is necessary. The slide can then be sent in the fixative to the nearest laboratory and report can be obtained in 48 hours. To obtain similar smears from the bronchi or the stomach or colon involves a more complicated manoeuvre. The two brushes I have here are one for gastric brushing and the other for colonic brushing.

In cases where such simple methods are not likely to yield results, the wisest thing would be to refer the cases to the nearest diagnostic centre.

Having outlined the simple diagnostic procedures that any physician could perform, I would like to define the symptomatology of malignant disease. The most vital thing to remember in malignant diagnosis is that Cancer as such has no specific symptom. The earliest symptom of cancer is the persistant dysfunction or disfigurement of the organ of its origion. Thus in the stomach, anorexia and nausea; in the rectum, tenesmus and mucosangunous discharge, and in the colon progressive constipation or frequent diarrhoea; in the uterine cervix bleeding on coitus; in the breast or mouth, a lump or an ulcer. Please remember that these symptoms do not indicate cancer but at the same time powerfully suggest the need for a thorough examination, especially if the symptoms do not improve with scientific treatment in a months time. Kindly remember that "pain" and "glands" are not criteria of Cancer but indications of the transition across the lethal border to possible incurability.

No age is exempt from Cancer nor sex. It is time that the fallacy of the "cancer age" was forgotten.

I shall now briefly mention the special methods of investigations that are employed at the Cancer Institute for early diagnosis. They are :—

i. Radiological.
ii. Endoscopy.
iii. Histological and Cytological.
iv. Hormonal and Chemical essays of blood and urine.

The day as long past when a diagnosis of Cancer could arouse us to no greater activity than prayer and stir no stronger emotion than despair. It is well that every one should realise that Cancer is a curable disease—more curable than nephritis, hypertension, cardiac disease or diabetes. But as in all diseases, early diagnosis is the key to successful therapy. While in tuberculosis and leprosy the margin of available safety is fairly wide, in cancer, it is very narrow indeed and whether the patient shall pass this narrow strip into the valley of the shadow of death will depend as much on the intelligence of the patient as on the knowledge, ability, care and integrity of the family physician. And before I close I would like you to remember one dictum in the diagnosis of malignant disease "that Cancer is curable only when it is still a clinical suspicion and not a clinical diagnosis".

VENEREAL DISEASES IN MADRAS

A PROGRESS REPORT

By

* **Dr. P. N. RANGIAH, M.D.,**

It is customary to produce a progress report at annual conferences like ours and I do so with pleasure, incorporating within the report the recent trends in the diagnosis and treatment of venereal diseases.

No discourse on the management of V.D. can be considered complete, productive or fruitful until and unless a concrete idea of the magnitude of the problem of V.D. in our area is visualised. What is the statistical status of V.D. in our city to-day ? I must confess I can only talk of what I know of the Inst. of Venereology, G.G.H., Madras. Here are the statistics brought up-to-date, *vide* Charts 1 and 2.

You will observe in the charts presented, figures for every one of the five V.D., compiled over the past few years at the Inst. of Venereology, show a marked decline. If you believe in a grain of rice for the pot of rice I am afraid you will rush to the presumption that the conquest of V.D. has begun and is fairly complete.

The truth is far from it, for a review of 13th report on the progress and activities of Shree Jain Medical Society, Madras, reveals the establishment of 8 dispensaries including a maternity hospital within our city limits between 1950 and date and these dispensaries took up a case load of 5,44,266 for one year ending November 1956.

On the authority of the Asst. Director of Medical Services. ESI., Madras, I may state that 14 Employees' State Insurance Dispensaries, one mobile van dispensary and 2 utilisation dispensaries treated between them 1,62,413 insured persons in 1957.

The annual report of the GGH, Madras for 1957 indicates that a total of 7,91,292 patients were treated registering a drop by 2 lakhs, approximately, when compared with the figures for 1955 *viz.*, 9,94,192.

In the light of this division and dispersion of labour that has occurred during the past few years it is not surprising that there should be a decline in the admissions at the Inst. of Venereology. Within less than 5 years a proportion of our out-patient load seems to have get screened off in the auxiliary and other newly sprung up treatment centres. It is only the maintenance of a Central VD Register for the city, if not for the State, that can give us authentic information on whether the incidence of VD in the city has declined or not.

The percentage of positive reactors amongst pregnant women attending the Women and Children's Hospital has remained constant at about 8·5. Similarly the %age of positive reactors by the self-same VDRL slide test technique amongst the victims of ocular diseases attending the GOH, Egmore, has not registered a fall below 16. If these figures mean anything, they are an indication of the persistent, uncontrolled and ever enlarging syphilitic reservoirs in the city.

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Apart from this we have our misgivings. when we come to consider the change over of the patient load from the Specialists' hands to those of others elsewhere. If the antibiotic penicillin were specific for syphilis and gonorrhoea it is equally beneficial in many another common non-venereal ailment met with in practice. Penicillin that is obtainable for use in ready made suspension, penicillin that requires no search for the veins and penicillin that could be easily delivered without any fear of reactions early or late, has flowed down the syringes of not only the qualified members of the medical profession, the general practitioners, but also through the syringes of others who have managed to learn to wield and load the Venereologists' gun with the magic bullet, the penicillin of Fleming, honoured by us as the Queen of drugs. This single circumstance is responsible for blasting out any surface evidence of syphilis is gonorrhoea for the time being. With haphazard treatment, the infection is driven to the depths with the potentiality of a boomerang recoil effect at not a distant period of time. We have the impression that pucca facilities for laboratory diagnosis of VD and personnel for epidemiological follow up of patients are not the idea elsewhere. We some times feel that the management of VD without supervision is nothing short of just 'first aid' with a full stop there.

Let us not repeat history. We may recall the time not long ago when the American and British Medical literature were once replete with news about their triumphant decline in VD. Recent trends in those countries appear disappointing. The Bulletin of Hygiene, October 1958, page 914 reads under USA " VD incidence is rising again in many parts of the USA. Reports from 145 health departments in all 48 states indicate an increase of 4144 cases of syphilis, (all stages except early latent). VD is rising in 19 states, teen age VD is rising in 11 and control programmes have been considered inadequate in 35 states. It has been estimated that 200,000 boys and girls contract VD each year. A reduction in the federal budget was considered to have wrecked a system so carefully constructed by VD experts ", For our part we are still in the preparation for construction of a net work of VD clinics in the State. Even before we could implement the VD schemes contemplated under the 2nd Five Year Plan our seemingly declining figures appear to distract us to slumber under the false premise that the death knell of the VD speciality and of the Specialist who practises VD, has been sounded.

Ladies and gentlemen, venereal diseases are yet with us, camouflaged and in the negative phase and I anticipate a bumper crop of untreatable late syphilis in course of time. It is high time that we hoist the flag of warning that the disturbing ripples on the seas of venereology forebode a future storm.

With this preamble, I propose to present the salient features depicting the recent trends in the diagnosis and treatment of each one of the five veneral diseases.

Syphilis

Diagnosis.—We have conventionally depended for diagnosis of syphilis upon historical, clinical, bacteriological, serological and histopathological data, an ensemble of information—each one of which is full of ambiguity and uncertainty except perhaps the demonstration of Treponema Pallidum which even is subject to mistaken identity in the midst of the teeming spirillary saprophytes usually found in the lesions simultaneously. If the patient should already have been partially treated with penicillin or other antibiotics. the difficulties in diagnosis become insurmount-

able. For one thing, the morphological pattern of the disease gets altered and/or the causative organism cannot be demonstrated. Should be serological test be negative to start with, it may continue to remain non-reactive, while the clinical condition progressed or the serology may take a longer time to become reactive and when this does happen, the titer appears to be low. The task of the Consultant Venereologist who has to spot syphilis under these circumstances becomes one, not enviable.

It is here one looks forward to help and contribution by the socalled verification tests or specific tests in the diagnosis of syphilis, namely treponemal immobilisation test, treponemal agglutination test, treponemal immune adherance test and treponemal complement fixation test. Of these, the best adjuged elsewhere in the world is the tremonemal immobilisation test which we have not been able to perform in our laboratory for want of certain special essentials. In the absence of this test, we have had to experiment with the treponemal agglutination test and the treponemal immune adherence test, and at the moment the usefulness of either of them is under study.

We have had to resort to another test for the diagnosis of syphilis with spirochaetal antigen prepared from our own rabbits in Madras in our own laboratory, *viz.*, the treponemin skin test, to resolve problematic syphilis cases. Even with this diagnostic procedure we have been perturbed, for, when the reaction was positive, it did not connote a syphilitic condition nor did it preclude the clinical condition belonging to a different aetiology, independent of syphilis occurring in a syphilitic individual.

In such a predicament we hastened to study the histopathology of suspected lesions in the fond hope of getting light but found ourselves in the dark in a sea of "Chronic inflammation", a highest common factor in most of histopathological studies.

We were compelled, when in such a dilemma, to violate the principle of 'treat after diagnosis' and adopt what is called 'the therapeutic test', 'to give the benefit of doubt' and diagnose after treatment. At the end of this procedure we found ourselves worse confounded than heretofore as the irreversible pathologic state of the individual lesion maintained the *status quo.*

Having described the diagnostic puzzles in syphilis, may I take this opportunity of venturing before this audience the plea that no case of suspected syphilis shall be treated as such until all avenues of investigations relevant to syphilis are thoroughly explored and the conclusions arrived at; otherwise the treatment of syphilis on supposition without supportive evidence is prolific and productive of untold misery and dangerous syphiophobias which none of the ordinary physicians can treat but the well trained psychiatrist.

Treatment

The treatment of well established syphilis has not much altered. Whatever the category of adult syphilis may be, the approved schedule followed has been the administration of 2 c.c. or 6 lakhs of PAM in oil given I.M., daily for 10 days.

This plan has been followed steadfastly during the past 6 years. We have not had reason to alter the schedule in the management of early syphilis, nor have we heard of augmentation elsewhere in the world except probably in Russia where early syphilis is treated with penicillin concurrently with metal chemotherapy and nutritious diet,

In congenital syphilis of less than 2 years of age 1 c.c. or 3 lakh units of PAM or the halved adult dose is given daily I.M., for 10 days with care to requisition immediately the services of paediatric physician to look after the needs of the marasmic infant, in the form of warmth in an incubator, fluids, salts and occasionally blood.

The infected infant or the adult at once becomes a focus of enquiry and an epidemiologic survey of the whole family is carried out and the possible contacts are traced, examined and treated. The epidemiologic treatment comprises a single insurance dose of 1·2 mega units of PAM.

This is also the prophylactic treatment *i.e.*, 1·2 mega units of PAM in oil whether it be taken pre or post coitally. Mechanical or chemical prophylaxis of the sexes holds its usual place of importance as an adjuvant.

In the absence of authority through legislation, or Public Health Acts in operation it has not been possible for us to insist on compulsory production of sex partners or to prevent the infected patient from indulging in sexual congress, particularly getting into wedlock while under treatment.

A word about epidemiologic failures :— Our intelligence section, meaning our social workers, concentrated their probing into the affairs of a child, its mother and father but unwarily or unconsciously left out of consideration the "keep" of the father who was incubating syphilis and who therefore was ultimately responsible for reinfecting the treated family and to reconstruct the broken chain of infection in the family once more.

When one of the siblings in an infected family was omitted for reasons of unavailability there was epidemiologic failure in the treated group requiring re-treatment over and over again.

These are but a few instances demonstratiug the loopholes in epidemiologic work in a well conducted syphilologic clinic as ours. If such misgivings should befall us, the state of the patient clientile elsewhere where such facilities do not exist, can be easily imagined.

We have to record with regret that in spite of our untiring vigil over the infected syphilitic patients, before our very eyes nearly 30% of them, failed to take the treatment for syphilis or to complete the therapy which is only of such a short duration as 8 to 10 days.

While on the subject of treatment it may be mentioned also thet we have no method of knowing when treatment for late syphilis should cease. For want of this knowledge we have had to treat in the past, cardio-vascular, neuro and visceral syphilis for many times over and over again. We have stopped this repetitive treatment now. Fancy the face of the Venereologist who practises such masterly inactivity in relation to patients suffering from CVS or CNS syphilis in the wards. He looks small when he has to pass by the patient in the ward without further therapy for the duration of patients' stay which may extend to weeks or months. It is here we have felt the need for indigent homes for the chronically ill.

Bismuth and iodides have staged a come back in the management of late syphilis. Bisoxyl 2 c.c. or 0·2 gms. of bismuth metal is injected I.M., once a week for 10 weeks concurrently with penicillin therapy of late syphilis.

Iodides in the form of 20% NAI solution are given I.V. daily in doses ranging from 5 to 20 c.c. We also administer 60 grains of Pot. Iodide in

60 minims of water to such late cases early in the morning when they get up from their bed. Precautionary measures are taken to ward off bismuth intoxication through oral hygiene as in the past and iodism is countered with simple withdrawal of iodides.

Benzathine Penicillin in a single session therapy of 2·4 mega units I.M., was given to 169 patients and the results have been recorded as satisfactory.

The BSA, Achromycin, 500 mgm. in capsules orally, 6th hourly round the clock for 12 days was administered to a selected group of 10 pregnant women with syphilis. Syphilis was brought under control as judged by :

(1) A satisfactory outcome of pregnancy *i. e.* the birth of a living non-syphilitic baby at full term free from any taint of syphilis and found to maintain normalcy, clinically and serologically followed up to a period of 6 months from the date of birth.

(2) A drop in the serologic titre of the mother or a reversal to negativity.

It may be noted here that the time is not ripe for recommending either Benzathine Penicillin or BSA for routine use in the management of early syphillis for reasons of difficulty in the administration of the former and the expense involved in the latter.

In the matter of ocular syphilis and mental syphilis besides the use of the antibiotic, penicillin as the specific remedy and appropriate symptomatic treatment, steroids have been employed in the form of Prednisolone 10 mgm, 6th hourly round the clock for the first week and then the dose is tapered off, observing the usual precaution of examining the weight, the b. p., and the urine for any alteration. The results will be available when the studies are over.

It is our regret also that in the midst of clinical malaria, therapeutic malaria, Von Jauregg's discovery is not available. Efforts are being made by the Director of the Institute of Venereology for the creation of a mosquitarium at the Mental Hospital, Madras, through the kind offices of the ICMR for the benefit of patients suffering from parenchymatous neurosyphilis of the categories of general paresis, tabes dorsalis, primary optic atrophy etc.

Reinfections in syphilis have become a common commodity. We have on record a patient reporting with reinfection in syphilis for the 6th time. No amount of persuasion could restrain the patient or restrict him in his chequered career. Remedy ? Marriage ?

Resistance to penicillin has only once been recorded in late syphilis in our Institute.

Treatment reactions with penicillin have been published: 2 fatal anaphylactoid reactions and 1 fatal hyperergic penicillin reaction. Serum sickness type of reaction during penicillin therapy has been fairly common.

Our plan to meet such emergent reactions is as follows : 1 c.c. of Liquor Adrenaline Hydrochloride is administered at once. Oxygen inhalation is started, and anti-histaminics are given enterally or parenterally depending upon the state of consciousness. The patient is put to bed and ensured warmth and kept under surveillance. The adrenaline injection is repeated a few hours hence as sometimes the waning penicillin reaction waxes strong once again all on a sudden.

Recently we have been put in the possession of Neutrapen, the enzyme penicillinase, for I.M. injection in a single session, of 8 lakh units in 2 c.c. of water once only, for its action is to neutralise

the circulating penicillin through converting it into an ineffective penicilloic acid in the matter of few hours.

Interrogation of every patient who has to receive penicillin, to elicit any history of previous penicillin reaction or for the past history of cutaneous, respiratory or other forms of allergy, forms a regular item in the programme of management of syphilis with penicillin.

Skin tests to predetermine allergy have been unsuccessful. It is our custom to provide every penicillin sensitive patient with a warning card with which the patient might be able to alert the future medical officers who might have occasion to treat him thereafter.

Gonorrhoea

In an annotation "Lancet" 11th October, 1958 entitled "Treatment of Gonorrhoea" it appeared that "the incidence of gonorrhoea continued to decline until 1955, when for the first time since the war the annual report of the Chief Medical Officer of the Ministry of Health indicated an increase in the number of patients of gonorrhoea attending the clinics. The rise in the incidence has continued and has accelerated".

Gonorrhoea at the Institute of Venereology appears to be on the wane in parallel with syphilis. As the minimum treatment given for syphilis at any time by any body is more than the scheduled dose of 2 c.cs. or 6 lakhs of PAM necessary to combat gonorrhoea it happens that gonorrhoea has really suffered a severe blow. Adnexal complications of gonorrhoea have become a curious rarity though an occasional metastatic complication such as gonococcal arthritis and synovitis has been seen in patients now and then. We have not had a single proven case of gonococcal iritis.

Recurrent gonorrhoea was traced to reinfection from the untreated consort or fresh infections. One patient reported with gonorrhoea for the 16th time — VDOP No. 3273/53.

We have not yet encountered the resistant gonococcus contrary to the experience of Curtis and Wilkinson who were saddened by the appearance of an increasing number of cases of gonorrhoea resistant to penicillin throughout London. They measured the sensitivity to penicillin of 302 strains of gonococci by means of tube sensitivity tests. Of these strains 19·5% were sensitive to penicillin at levels of 0·125 – 0·5 units per ml. In no case did failure occur when the sensitivity of the organism was below 0·03 units per ml. which is the usual penicillin concentration aimed at in practice with the standard schedule of therapy of gonorrhoea *viz.*, 1 c.c. or 3 lakh units of PAM in oil given in a single dose I.M. On this score the authors advocate a higher schedule of penicillin therapy for gonorrhoea *i.e.*, 4 c.c. or 1·2 mega units given in a single dose.

Complications of gonorrhoea are treated with the induction of pyrexia with typhoid antigen in graded doses, given I.V., in multiple sessions alongside PAM therapy. Gonococcal ophthalmia in adults is treated with PAM 1 c.c. or 3 lakhs I.M. daily for 4 days. Crede's treatment of neonates continues unabated.

Gonococcal vulvo-vaginitis in young girls has lost its ancient sting. No more has one to resort to oestrogens to convert a girl child into an adolescent girl, for control of gonorrhoea. Just 1 c.c. or 3 lakhs of PAM I.M. daily for 4 days suffices to free the girl victim of gonorrhoea.

BSA, barring streptomycin, have every one of them given a cure in gonorrhoea.

Our problem to-day is not so much the control of gonorrhoea as checking non-gonococcal discharges in the sexes. Amongst the incriminated agents responsible for the leucorrhoea the invulnerable Trichomonas Vaginalis Donne happens to be the top ranker. When the female is infested with this parasite, the vagina is painted with aqueous gentian violet 1% and SVC tablets 2 at a time are inserted into the vaginal vault daily for 10 days. But it has been difficult to clear the male urethra of the T. V. After many a trial and failure with several remedies including a Japanese product, Trichomycin, we have started irrigating the male urethra with 500 ccs. of a solution of 0·06 G. of Mapharsen daily for 10 days. The immediate response has been satisfactory. The permanence of this achievement remains to be seen.

Chancroids

A venereal disease diagnosed curiously as such usually by the elimination of syphilis and granulomas, It is stranger that it should be diagnosed only after successful therapy with sulphonamides. 1 gm. Elkosin orally given thrice daily for a week and topical application of any bland ointment to the ulcers. The causative organism H. Ducreyi has been elusive and baffling the bacteriologists and the clinicians. The smear method, the culture method, the animal inoculation method as well as the cuti test with the bacillary antigen (not available) have not been helpful as diagnostic aids. " Auto-inoculation diagnosis " has been successful in a few cases but this has been only one step in the ladder of successful diagnosis. The next step of isolation of a pure strain of the organism in the transplant has not been achieved.

In recent times there has been a keen competition between chancroids and a new comer, Herpes Progenitalis, on the scene this new comer has come to prominence through suppression of the erstwhile major members of veneral diseases *viz.*, syphilis and gonorrnoea. Early chancroids of bacillary origin and herpes pregenitalis of viral origin are both multiple, soft, small in size to begin with and occur on the external genitalia; while the chancroids grow, bleed easily, show undermined edges, remain discrete and produce lymphadenitis in the neighbourhood, the individual component of herpes progenitalis remains small, tends to coalesce and maintains a superficiality, disappearing spontaneously in a few days without producing and lymphadenitis in the vicinity. The distinguishing hall mark of herpes progenitalis remains the recurrent clustering character and the infection is checked through vaccination with cow pox lymph, one insertion intra-dermally, once a week for 8 weeks, and treating the sex partners similarly.

Granuloma Venereum.

The bacillary venereal granuloma familiarly known to us as Donovanosis after the discovery of Donovania Granulomatis by Col. Donovan has stood steady without much of a tendency to decline in its incidence. It is heartening to note that junior specialists have become cognizant of the disease and have become proficient in the demonstration of the causative agent in lesions even when insignificant and located on the external genitalia of the sexes.

No longer do we have to wait for a barber to rid the patient of the lesion through circumcision and allow the disease to flare up in the inguinal region, to deserve the appellation inguinal granuloma. Inguinal granuloma is the international nomenclature for the disease, which we do not approve.

The diagnosis of Donovanosis is simple, by the demonstration of the Donovania granulomatis in smears of the lesions stained with Leishman's stain. It is

difficult only when a malignant condition co-exists, as the histopathology then is equivocal.

Treatment

The specific treatment of bacillary venereal granuloma has been successful with the administration of streptomycin, a combination of equal quantities of the plain with the di-hydro preparation, given I. M., in 1 Gm. doses twice daily for 10 days.

In recent years we have met with a few therapeutic failures. It has been observed that the causative organism has been developing drug resistance and we are alarmed at the progressive increase in the percentage of drug resistance, exceeding 13·2. This is one disease, *par excellence*, demonstrative of bacterial resistance. When streptomycin fails, the practice has been to switch over to the BSA–Tetracyclines or Chloromycetin–in 500 mgm. doses given round the clock 6th hourly for 10 days. In the event of a failure even with these, the drug resistance is broken with the ancient antimonials in the form of Fouadin in 4 c.c. doses given I. M., on alternate days till either the lesions are healed or a total of 100 c.c. has been administered. We have a case on hand that has resisted even the old antimony forcing us to invoke the aid of the Barnard Institute of Radiology for shattering the resistance of the organisms with x-rays.

Lymphogranuloma Venereum or the Viral Venereal Granuloma: insiduous in its early clinical phase and formidable in its late clinical phase, it often appears before the venereologist in the mid or the easily treatable bubonic or inguinal phase. The diagnosis rests on a positive Frei intracutaneous test and an alteration in the electrophoretic pattern of blood serum proteins with an increase in the gamma globulin component beyond the normal of 1·49 gms. % The bubo may subside with rest or progress to suppuration, sinus formation, lymphangiectasis, with a resultant elephantiasis and ulceration combinedly known as "esthiemene", reminiscent of filariasis. Later manifestations are ano-proctitis, ano-proctitis with stricture, stricture without ano-proctitis and or rectovaginal or vesico-vaginal fistulae in women.

The treatment comprises an admixture of medical and surgical procedures:

Medical:—Cheap oral sulpha—Elkosin 2 tab t. d. for 1 week, and for anorectal syndrome a suspension of 20% sulphaguanidine as enema every night for periods of a week to alternate with weeks of oral sulpha therapy or an expensive oral broad spectrum antibiotic —Tetracycline or Chloromycetin given as 500 mgm, 6th hourly round the clock for 10 days.

Surgical:— The simple periodic dilatation of the stricture if any with suitable Hegar's dilators—a time consuming and painful procedure, failing which—(*a*) a palliative colostomy (*b*) proctotomy (*c*) resection of the rectum, bearing the stricture portion, provided the external sphincter is intact, and (*d*) plastic operations for the VVF, RVF or the destroyed urethral floor.

Conclusions

I conclude the review embodying the modern trends in the management of VD with a note that whatever be the rise or fall in the incidence of VD. one thing is certain that so long as the last man on earth exists, genito-urinary problems will remain with him, requiring the expert specialist's aid. It is the speciality alone that can attempt to determine the specific cause of the specific disease, apply the specific remedy for the specific disease and enjoin the specific measure to prevent the specific disease.

Long live the speciality of venereal diseases.

Acknowledgement.

My thanks are due to :

1. Director, Institute of Venereology.
2. Dean, Government General Hospital, Madras.
3. Assistant Director of Medical Services, Employment State Insurance Scheme, Madras.
4. Secretary, Sree Jain Medical Relief Society, Madras.

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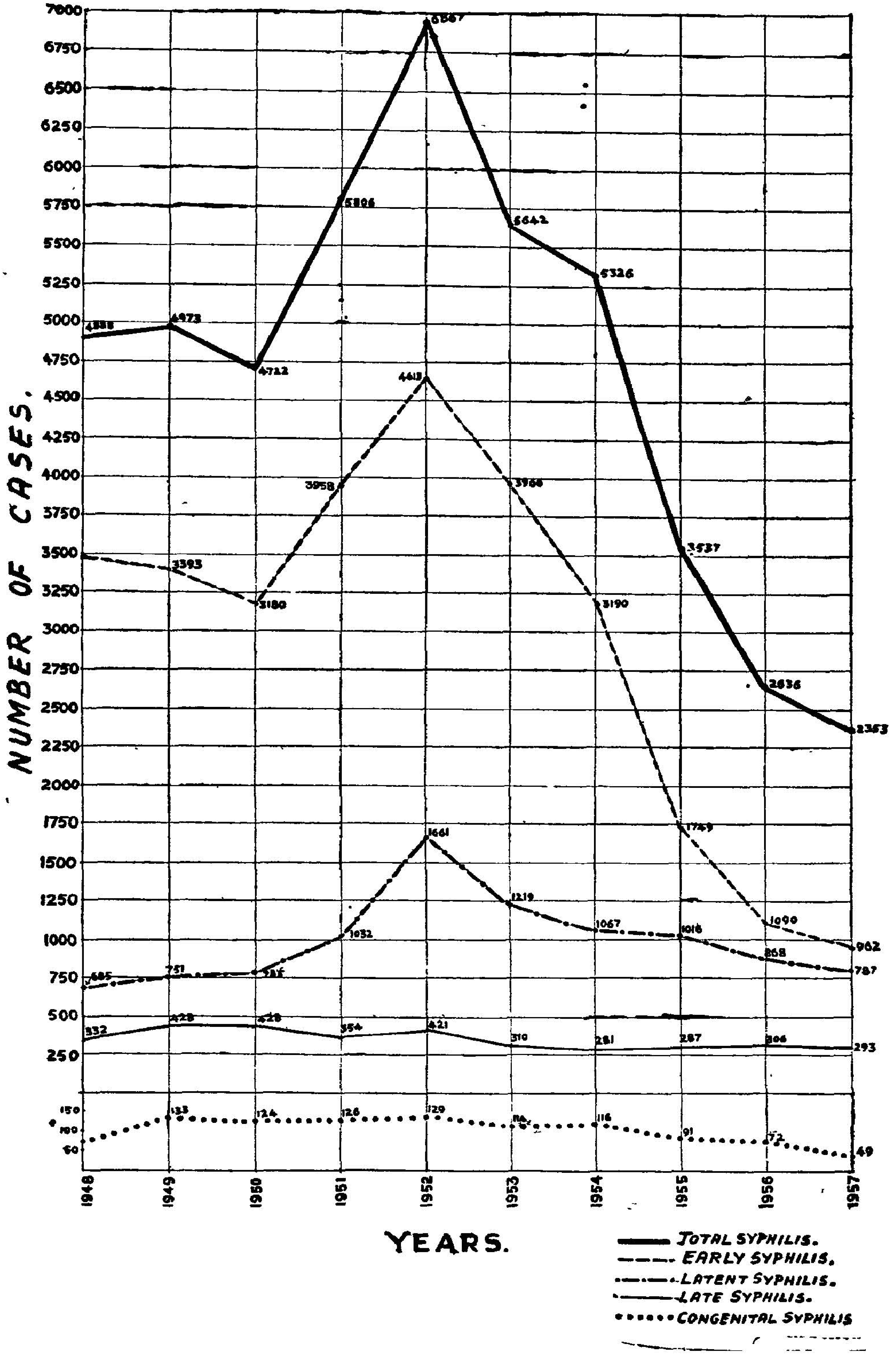
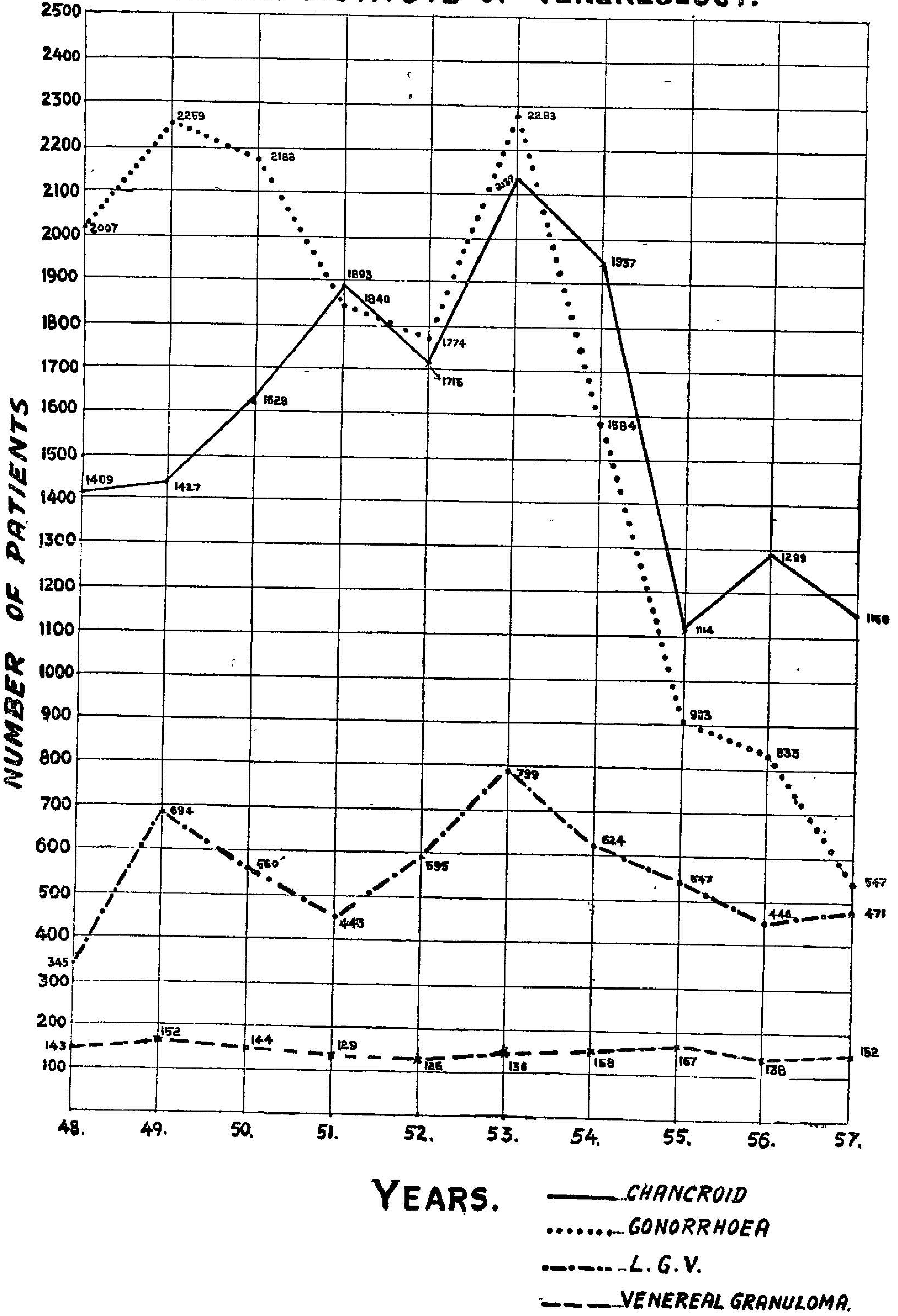
MADRAS MEDICAL COUNCIL

At a meeting of the
Madras Medical Council
held on the 23rd March 1959,
Dr. T. S. Balasubramanyam, M.B., B.S.,
Tiruchirapalli
was elected as the Vice-President
of the Council.

TREND OF ATTENDANCE OF SYPHILITIC PATIENTS AT THE INSTITUTE OF VENEREOLOGY.



TREND OF ATTENDANCE OF NON-SYPHILITIC VENEREAL PATIENTS AT THE INSTITUTE OF VENEREOLOGY.



One who was struck by
" Neisseriae Gonorrhoeae Sixteen Times ".

The mother was treated for syphilis during her pregnancy more than once as the other infected members were brought for treatment later.

The syphilis in the elder girl led to the discovery of infection in the baby and the mother.

Presidential Address *

By

Dr. T. V. SIVANANDAM, M.B., B.S., M.L.C.

Delivered at the

Thirteenth Madras State Medical Conference, 1958

held at Madras on 29—11—1958

Our homage:

At this Conference it is part of our duty to pay homage to all those members of our Association who were snatched away by the icy hand of Death during the year and we greatly miss the presence of the following members of our Association:

1. Dr. H. J. Masilamani of Madurai.
2. ,, Mrs. C. G. Herbert of Ootacamund.
3. ,, A. Ramachandra Acharya of Madras.
4. ,, Y. G. Henry of Nagapattinam.
5. ,, S. V. Sankaran of Palani.
6. ,, A. V. S. Sarma of Madras.
7. ,, S. V. Subbiah of Alwartirunagari.
8. ,, G. D. Dawson of Nagercoil.
9. ,, N. Shanmugham of Nagalapuram.
10. ,, V. Iravatham of Madras.
11. ,, (Lt. Col.) C. R. Krishnaswami of Madras.
12. ,, M. R. Guruswami Mudaliar of Madras.

Ourselves:

The I. M. A., the State and District branches will always be at the disposal of the Government to give their assistance and help to solve amicably the matters concerning medicine and public health. We request the Government to recognise our existence.

Service Personnel:

The medical men in Government service are not paid adequately for the noble and strenuous work they do. The disparity in the scales of pay of medical men in the Government service and the Local Boards' service must be removed. The medical men in service must be paid amply and debarred from having any private practice. The person who teaches non-clinical subjects must be paid more. It will be surprising to note that the pay of a Gazetted Civil Assistant Surgeon is far below that of a non-gazetted post in the Madras Secretariat Service.

District Hospital:

The District Hospitals are overcrowded. Every district hospital must be provided with an X-Ray diagnostic set with a deep X-Ray plant also and sufficiently equipped clinical laboratories. An electric laundry

* A Summary of the Address.

is an essential necessity in each district hospital. It is gratifying to note that every Head Quarters Hospital is provided with a well equipped Blood Bank which is of immense use to the public.

In view of the recognition of the Employees State Insurance Scheme it would be better for the labourers as well the Government to have a separate labour hospital built at every district head-quarters so that a common man can have easy access to the civil hospitals for investigation and treatment. The chronic and disabled patients have become a problem to the society. Hence separate hospitals to take care of unfortunates' chronics and disabled must be opened at the district level also.

The advisory bodies to the district hospitals must be properly consituted with persons who really take interest in the welfare of the institutions. The members of the advisory board and the local politicians should not interfere with the day-to-day administration and routine work of the District Medical Officers which are becoming more often a hindrance than an assistance.

District Medical Officer:

The Government can very well establish a cadre of senior medical men in service to be personal assistants to D. M. Os. to look after administrative matters and allow the D. M. Os. to do their professional duties which are in essential need to the sick and suffering.

Nursing System:

The introduction of male nursing system has brought down not only the efficiency of general nursing but also the good and efficient nursing of female nurses. Male nurses can very well fit in the places of nursing in male venereal departments. mental hospitals etc. I am glad to hear that the Madras Government has temporarily suspended the recruitment of men to the nursing profession. The present set of male nurses are persons of good calibre and response. They can be given some more training in preventive medicine and minor surgery and posted as Health Assistants in the Primary and Rural Dispensaries.

E. S. I. S.

The Panel System of Employees State Insurance Scheme is working very satisfactorily in Coimbatore. I am unable to understand the attitude of the Government embracing the Service System even in the areas where Panel System could be started. The introduction of Service System in E. S. I. S. cuts at the root of the fundamental basis of the E. S. I. Act that gives opportunities for the labourer to choose his own doctor. I trust the scheme will be extended to the families of the labourers at an early date.

Medical Education:

It is an accepted fact that we require more medical men in our country. Our colleges should not be mere factories to manufacture men and women with medical degrees but they must turn out medical men with clinical knowledge to tackle the problems independently when they are called upon to do so. This can be achived only when qualified and well trained teachers are appointed.

Rural Dispensary-Primary Health Centres:

It is evident that there is no proper encouragement from Government and the Government Pay of medical men is not commensurate with the volume of responsible duties they are expected to discharge. In private practice one can earn more than the service salary without any departmental bossings. Often times non-medical men who occupy the helm of affairs ask us to go to villages to work in the rural areas. Have the Government provided the medical personnel with the basic requirements in the villages? No.

The doctor, to his utter despair, finds no house to live in. He tries to get a transfer or deliberately resigns from the job to better his prospects.

We hear that several primary health centres are closed either for want of personnel, medicine or buildings. The doctor must be paid at least one hundred rupees extra as long as he serves in the primary health centres. Proportionately the special allowances to the other medical personnel also must be increased. Doctors who are posted at the primary health centres should be given a short term post-graduate training in the public health aspect of the diseases also; otherwise the purpose for which the primary health centres are opened becomes nullified.

Integrated System of Medicine :

The ministers of our State and one section of the members of the legislature took the novel method of "Pada Yatra". In their contact with the people in the villages the Villagers did ask for opening of dispensaries of modern medicine only. Hence dispensaries of indigenous system need not be thrusted on them.

The huge amount of money that is being spent by the Government every year on the College of Integrated Medicinc is in my opinion, a colossal waste. The graduates coming out of this college prefer to practice allopathic system of medicine. If we really want the indigenous system of medicine to survive and flourish the indigenous system of medicine must be taught as a post-graduate study to the persons who have obtained the basic qualification in the modern scientific medicine.

Hence it is high time we stop this eye wash and make this College of Integrated Medicine a full blown Medical College of Modern Scientific Medicine with post-graduate and research institutions for the study of indigenous system of medicine.

Family Planning :

One of the several ways, by which we have to solve the Socio-Economic problems of our country is 'Family Planning'. It is evident that only poor classes, low income and under-privileged section of the human species require Family Planning, and limitation of the family. Though the figures given by the department are showing encouraging results yet we invariably find that those figures mainly pertain to rich people and highly placed middle class persons. The propaganda of family limitation must be taken to proper quarters wherein solution of the socio-economic problem of our country lies.

Life Saving Drugs :

The medical profession is very badly in need of life saving drugs like Morphia and allied products. We are very much handicapped to give relief to the sick and suffering on account of its non-availability in the market. Permits for the import licences are given to merchants who utilise the foreign exchange to import other products which are easily marketable and yield good profits. Hence I request the Government to take immediate steps to issue import permits to medical men, pharmacists and chemists only. In the interests of the sick and suffering it is not desirable and also dangerous to limit the supply of the life saving drugs.

Medical Inspection :

The health of our children and youths are very much neglected during their school and college days. They are susceptible to evil habits and diseases. May I request the Government to make the medical inspection in schools and colleges compulsory? Proper and thorough examination and mass X-Ray photographic examination of the students must be done to diagnose latent diseases.

Public Health Museum :

Preventive Medicine is very essential for the healthy progress of any country. The common man must be aware of the cause and spread of infectious and contagious diseases and how to prevent the spread of the epidemics. The best way to achieve this aim is to establish a Public Health Museum in every district head-quarters.

It would be better if the Government speed up the Regional Public Health Laboratories so that these laboratories can solve Public Health requirements quickly.

Industrial Medicine—D. O. H. S. :

I would like the Government to create a separate department of Director of Occupational Health Services to tackle the prevention. spread and treatment of occupational diseases. In view of the increase in industrial accidents, I appeal to the Government to open an Orthopaedic Unit with trained personnel and good equipment in every district head-quarters hospital to tackle the industrial surgery.

Medicoes :

I appeal to all the medicoes that when they graduate themselves and go out of the college they should make it a point to enrol themselves as members of the Indian Medical Association, which is the only Association of its kind representing the medical profession, and thus add more strength to the Association in its efforts to solve the problems confronting the profession.

Let me conclude with my humble prayer to God and remind you the philosophy of life, the spirit of which we very often forget ;

" If wealth is lost nothing is lost
If honour is lost something is lost
If health is lost everything is lost "

JAI HIND !

SHORT REPORT ON THE 13TH MADRAS STATE MEDICAL CONFERENCE, 1958, HELD AT MADRAS DURING THE PERIOD FROM 29TH NOV. 1958 TO 1ST DECEMBER 1958.

THE 13th Madras State Medical Conference, 1958, was held at the Madras Medical College, Madras-3, from 29th November to 1st December 1958. The Conference was held under the auspices of the Madras State Branch of the Indian Medical Association and organised and conducted by the Madras City Branch of I. M. A.

The inaugural function of the 3-day Conference was presided over by His Excellency Shri Bishnuram Medhi, the Governor of Madras; and the Conference proper was inaugurated by Shri M. A. Manickavelu Nayakar, the Hon'ble Minister for Health with the Government of Madras, and presided over by Dr. T. V. Sivanandam, M.B., B.S., M.L.C., the elected President of the Madras State Branch of I. M. A. for the year 1958-59. There was an exhibition of Medical and Surgical Products held on the occasion which was declared open by Dr. P. V. Cherian, M.B., B.S., D.L.O., F.R.C.S., the Chairman of the Madras Legislative Council. The Scientific Session of the Conference was inaugurated by Dr. A. Lakshmanaswami Mudaliar, M.D., F.R C.O.G.. F.A.C.S., the Vice-Chancellor of the Madras University. There was a large attendance of delegates and visitors besides the medical students. Dr. S. C. Sen, the past President of the Indian Medical Association (Central), Delhi, was a distinguished visitor to the Conference. On the second day of the Conference there was an interesting variety entertainment by the members of the Madras City Branch, I. M. A. and their kith and kin; and a Banquet was held thereafter. The open session of the Conference was held on the concluding day of the Conference when a number of resolutions were passed.

Dr. P. Alagasingari Naidu, L. M. & S., the President of the Madras City Branch, I. M. A. and the Chairman of the Reception Committee delivered his Welcome Address and welcomed the gathering. The three-day programme commenced with the unfurling of the National Flag by the out-going President, Dr. M. Santosham, M. B. B. S., F. C. C. P., and the hoisting of the I. M. A. Flag by Dr D. V. Venkappa, the President of the Indian Medical Association (Central) Delhi. Many distinguished persons, among whom were Dr. U. Krishna Rau. M. B., B. S., M. L. A., a member of I. M. A. and the Hon'ble Speaker of the Madras Legislative Assembly; Dr. V. R. Thayumanaswami, M. S., F. R. C. S., M. Ch., the Director of Medical Services Madras; and the Mayor of Madras; graced function.

In his speech on the occasion, His Excellency Shri Bishnuram Medhi, the Governor of Madras, asked the doctors to create the proper atmosphere for the young men in the profession to spend at least the first few years of their practice in the rural areas 'where real Indian lives'.

He hoped the Conference would grasp the health problems of the country and devise ways and means to make the people healthy. Congratulating the Association for organising such conferences Mr. Medhi said the Governments at the Centre and States had to look up to the Association as advisers in tackling the health problems and also to depend mainly on it for the formulation of measures and their effective implementation in a planned manner consistant with financial resources of the country.

Inaugurating the Conference, Shri M.A. Manickavelu Nayakar, Health Minister of Madras State, referred to the indigenous systems of medicine 'which once flourished and relieved the sufferings of the people' and said it was necessary to revive them, place them on a scientific basis, subject them to research and help them to progress. Proceeding the Minister said that they were now engaged in the hard task of building a new India in which task everyone had a part to play. The contribution of the medical men was of utmost importance both in curative and preventive sides of the profession. To keep the millions in the country healthy and fit for work was a gigantic but urgent task, and the medical men were the most qualified and competent to perform this; and the services of medical men were therefore vital to the nation. The Health Minister said he was not unaware of the fact that the other side of the picture was gloomy in the matter of their status, pay and emoluments, opportunities for better qualification and advancement in life. 'My only answer is' he said, 'great achievements in an human sphere of activity are not equated to material returns and satisfaction'. He however agreed that the Government and the public should do their best to elevate their status and meet their material requirements; and in their deliberations over this question he would ask them to bear in mind the financial and other limitations owing to social and economic condition of the country.

After the Minister's speech, Dr. M. Santosham, the out-going President installed the President-elect, Dr. T. V. Sivanandam, M.B.,B.S., M.L.C., by handing over the Presidential Badge to him. Dr. D. V. Venkappa, the President of the Indian Medical Association (Central), Delhi, speaking next, pleaded for an All-India policy in regard to salaries and emoluments of medical men. Dr. T. V. Sivanandam, the President for the year, then delivered his Presidential Address.

Dr. G. Sriramulu L.C.P. & S., Convener of the Souvenir Committee released the Souvenir got up in connection with the Conference. In the speech opening the Exhibition, Dr. P. V. Cherian stressed the need for the country to attain self-sufficiency in the production of drugs and surgcial instruments. With the reading of messages received on the occasion by Dr. G. Ramachandramurthi and Vote of Thanks by Dr. B. Rama Rau, the Hony. Secretaries of the Madras City Branch, I. M. A. the inaugural function came to a close.

In the afternoon, the Scientific Session was inaugurated by Dr. A. Lakshmanaswami Mudaliar, the Vice-Chancellor of the Madras University. Delivering his inaugural address Dr. Lakshmanaswami Mudaliar referred to the importanee of post-graduate medical education and research. The Scientific Session was presided over by Dr. V. R. Thayumanaswami, the Director of Medical Services, Madras. After the clinical lectures there was an interesting Quiz programme at the end presided over by Dr: P. Arunachalam (Retd. Director of Medical Service, Madras) as the Moderator and in which the Professors of Surgery, Medicine, Pathology, Physiology and Paediatrics of the Madras Medical College participated.

The Annual meeting of the State Council of the Madras State Branch of I.M.A. was held in the evening of the first day of the Conference, when the Budget and Annual Report wae presented and there was an election of office-bearers of the Madras State Branch, I. M. A. for the year 1958—59. Dr. S. C. Sen graced this meeting with his presence and addressed the members of the Council.

The Conference concluded in the afternoon of 1st December 1958, the 3rd and last day of the Conference, after which the delegates were taken to the Cancer Institute- Adyar, and the Santoshapuram Sanatorium.

INDIAN MEDICAL ASSOCIATION

MADRAS STATE BRANCH

Fifteenth Annual Report for the Year 1957—1958.

Presented at the Annual Meeting of the Council of the Madras State Branch of I. M. A. held at "Hygiene Hall", Madras Medical College, Madras 3, on Saturday the 29th November 1958.

Friends :

On behalf of the State Council I have great pleasure in presenting this 15th Annual Report of the Madras State Branch of the Indian Medical Association for the year 1957–58 ending 30th September 1958.

2. Condolence :

It is with deep regret that I have to record the demise of the following members of our Association which occurred during the year :—

1. Dr. M. R. Guruswami
2. Dr. A. V. S. Sarma
3. Dr. A. Ramachandra
4. Dr. Mrs. C. G. Herbert
5. Dr. H. J. Masilamani
6. Dr. S. V. Sankaran
7. Dr. K. Rajam
8. Dr. K. R. Ramaswami
9. Dr. S. N. Rangachari
10. Dr. S. V. Subbaiah
11. Dr. Y. G. Henry
12. Dr. G. D. Dawson

May the Souls of these departed friends rest in peace.

3. Membership :

During the year under report the membership of the Madras State Branch of I. M. A. has registered a fall by about 200. This is due to the fact that consequent upon the reorganisation of State Branches of I. M. A. by the Central Office on the basis of the reorganisation of the States, 4 of the constituent branches of this State Branch went out of our jurisdiction to join the Kerala and Mysore State Branches of I. M. A. One branch, namely the Nagercoil Branch, came under the jurisdiction of this State Branch with a membership of 38. As against a loss of 292 members this State Branch gained by 38 members as a result of the reorganisation of State Branches of I. M. A. The percentage of total membership of our State Branch to the total members of the medical profession in the State is very low; and in order to make our Association fully representative of the profession it is necessary to enlist the large number of medical men still outside as members of the I. M. A. and to achieve this end the full co-operation of the local branches of I. M. A. is absolutely necessary.

4. CFC Contribution :

I am glad to report that all the constituent branches have paid the Central Fund Contribution due for their members for the year 1957–58 and there are no arrears.

5. State Council and its working :

There have been four meetings of the State Council during the year.

The need for a good attendance at all the meetings of the Council is very great since only in these periodical meetings that we could get together and discuss the important matters concerning our profession; and unless all the local

branches make it a point to send at least one of their representatives to the meetings the representative character of the Council will be much affected.

6. Activities of local branches :

Most of the local branches have been holding periodical meetings (clinical and business) and reports of such meetings are being periodically received.

7. Journal of the Madras State Branch :

The Madras Clinical Journal, the Journal of the State Branch, continues to be published under the Editorship of Dr. R. Kalamegham, B. A., M. B., B. S., Dr. Kalamegham has greatly enlivened the Journal and has vastly improved it in both its contents and get up.

8. Activities of the State Branch :

(*a*) The State Council constituted a deputation consisting of Drs. D. V. Venkappa, M. Santosham and V. Vijayaraghavan to wait upon the Government to secure relief to the medical practitioners from the Rent Control Act. The report of the deputation is awaited.

(*b*) The Council constituted a Sub-Committee consisting of Drs M. Santosham, D. V. Venkappa and K. C. Nambiar to consider the Medical Part of the II Five Year Plan and suggest suitable recommendations on behalf of the I. M. A. at the State Level. The report of the Sub-Committee is awaited.

(*c*) One of the veteran members of the State Branch and its immediate past President, Dr. Y. P. Vasudevan, has been elected as the representative of I. M. A. to the Indian Nursing Council.

(*d*) Answers to the questionnaire issued by the Indian Council for Child Welfare for the National Report to the 2nd International Study Conference in Child Welfare to be held in Tokyo. Japan, were sent to the Director, Indian Council for Child Welfare, through the kind co-operation of one of the members of the State Council, Dr. A. M. Sivaraman of Madras.

(*e*) The State Branch succeeded in obtaining orders from Government amending the rules relating to Hospital Stoppages by extending the benefit to medical and other officers in the Municipal Service with a pay of Rs- 300 and more by classifying them as Gazetted Officers for the purpose of the rules relating to Medical Attendance.

9. Accounts and Finances.

The accounts of the State Branch are maintained in due and proper form and got audited annually by an appointed auditor.

The financial position of the State Branch is sound and improving. There is a sum of Rs. 11,000/- in fixed deposits besides fluid cash in Prudential Deposit and Current Accounts.

Coimbatore
26—11—1958

C. ARUMUGAM,
Hony. Secretary. I.M.A.
Madras St. Branch.

INDIAN MEDICAL ASSOCIATION

MADRAS STATE BRANCH

Minutes of the meeting of the Council of the Madras State Branch of the Indian Medical Association held at the " Examination Hall ", Madras Medical College, Madras-3, on Saturday the 29th November, 1958, at 6 P.M.

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51 MEMBERS WERE PRESENT.

DR. T. V. SIVANANDAM, THE PRESIDENT, PRESIDED.

15 members have sent messages expressing their inability to attend the State Council Meeting.

Dr. T.V. Sivanandam, who has been elected unopposed as the President of the Madras State Branch of I.M.A. for the year 1958–59 and who presided over the meeting, expressed his thanks to the members for having elected him as their President for the year and hoped that with the good will and co-operation of all the members he would try his best to discharge his duty by the Association.

Resolution condoling the death of Dr. (Lt. Col) C. R. Krishnaswami and Dr. V. Iravatham of the Madras City Branch of I.M.A. and Dr. G. D. Dawson of the Nagercoil Branch of I.M.A. was moved from the Chair and passed unanimously, all the members of the Council standing for a minute.

" This Council of the State Branch of the I.M.A. requests the Government of Madras to include the President of the Madras State Branch of I.M.A. as one of the members in the Selection Committee to the Medical Colleges in the Madras State ".

The Audited Statements of Accounts of the State Branch for the year 1957—58 were passed.

Rent Control Act and the members of medical profession-classification of members of I. M. A. as " essential services "– communication from the Government in the matter :

The Hony. Secretary placed before the House the letter received from the Deputy Secretary to Government, Home Department, Fort St. George, Madras-9, in reply to the resolution passed at the open session of the 12th Madras State Medical Conference held at Coimbatore ; and said that the communication was to the effect that the Government do not consider it necessary to classify all medical practitioners of modern scientific medicine of five years standing and more as essential services on a par with the Government Medical Officers under Section 7(3)(A) of the Madras Buildings (Lease and Rent Control) Act, 1949. The House decided to discuss the matter during the open session of the 13th Madras State Medical Conference.

International Certificates of Vaccination and Inoculation-authentication of-complaints of defects-communication from the Government of India and letter of the Director of Medical Services, Madras, thereon :

The Hony. Secretary informed the House that a communication was received from the Director of Medical Services, Madras, forwarding a copy of the orders of the Government of India to the effect that disciplinary action will have to be taken against the Holders of the

Approved Stamp for issuing defective certificates of vaccination, particularly in respect of Haj Pilgrims ; and that he had been asked to bring to the notice of all Stamp Holders the need to be careful in authenticating the certificates and give no room for unpleasant action. The Hony. Secretary informed the House that the orders of the Government of India have been communicated to all the Presidents and Secretaries of all local branches of I.M.A. in the Madras State for their information and guidance, in Circular No. 6/58-59 dated 2-11-1958, and hoped that the Presidents and Secretaries of local branches present at this meeting would kindly note the situation and do the needful. The papers were recorded.

Medical Attendance–Employees of Local Bodies drawing a salary of exceeding Rs. 300/- per mensem–eligibility of medical concessions–amendment to the Madras Medical Attendance Rules :

The Hony. Secretary informed the House that the rules governing medical attendance on public servants, as existing, did not contain any provision for medical attendance on employees of local bodies who drew a pay exceeding Rs. 300/- and as such employees were not classified as gazetted officers they could not get the benefit of that class of officers nor could claim the benefit of the non-gazetted staff by reason of their pay. He noticed this defect in the rules, and addressed the Director of Medical Services, Madras, for suitable action to amend the rules and make some provision to cover this category of local boards' personnel. He was glad to announce to the House that his efforts were successful, and that the Government of Madras have issued an amendment to the Madras Medical Attendance Rules issued with G. O. No. 2800, Health, dated 24th September 1956, to the effect that ' Medical Officers in District Board and Municicial Medical Institutions drawing more than Rs. 300/- per mensem and incumbents of new posts carrying scales of pay exceeding Rs. 300/- per mensem which may be created in future under local bodies should also be treated as GAZETTED OFFICERS for the purpose of the grant of medical concessions to them '. He placed before the House the G. O. No. 2456 (Health) dated 8th August 1958 to this effect and the Council recorded the same.

L. I. Ms. and G. C. I. Ms–admittance into the Indian Medical Association or permitting them to attend the I. M. A. meetings as ' Visitors ' – point raised by the Hony. Secretary, Tanjore Branch, I. M. A. decision of the Central Office thereon :

The Hony. Secretary informed the House that the Hony. Secretary of the Tanjore Branch of I. M. A. had raised the question whether medical men possessing the L. I. M. and G. C. I. M. qualifications can be admitted to the I. M. A. and whether they could at least be invited to the meetings of I. M. A. as ' Visitors ' and wanted the official opinion on the point. The matter was duly referred to the Central Office, I. M. A. and the Central Office has replied that in view of Rule 12 of the I. M. A. Rules these medical men cannot be taken in as members, and to invite them to attend the meetings of I. M. A. branches as ' Visitors ' would contravene the spirit of the constitution of the I. M. A. and any step taken by local branches to this end would be irregular. This view has been duly communicated to the Hony. Secretary of the Tanjore Branch, I. M. A. The Council recorded the papers.

Circulars of the Indian Medical Association, Central Office were read and recorded.

Circulars of the Indian Medical Association, Madras State Branch were read and recorded.

"This Council expresses its sincere thanks to the Madras City Branch I.M.A. for the excellent arrangements made for the successful conduct of the meeting of the State Council of the Madras State Branch of I. M. A. and for the fine arrangements made for the boarding and lodging of the members of the Council attending the meeting. This Council further expresses its sincere thanks to the Madras City Branch, I. M. A. for organising on behalf of the State Branch the 13th Madras State Medical Conference and connected functions and for running the same in a most successful manner."

(The meeting terminated at 8 p. m.)

T. V. SIVANANDAM,
President.

C. ARUMUGAM,
Hony. Secretary.

ADVERTISERS in the "Madras Clinical Journal" are hereby requested to send the necessary instructions and material for their advertisements not less than one month prior to the publication of their proposed advertisement. They are also requested to return the corrected proofs so as to reach on or before the date mentioned on the proof copy submitted to them for their approval. This will lighten the task and inconvenience to the advertisers would be avoided. It is hoped that advertisers will willingly co-operate with the Managing Editor.

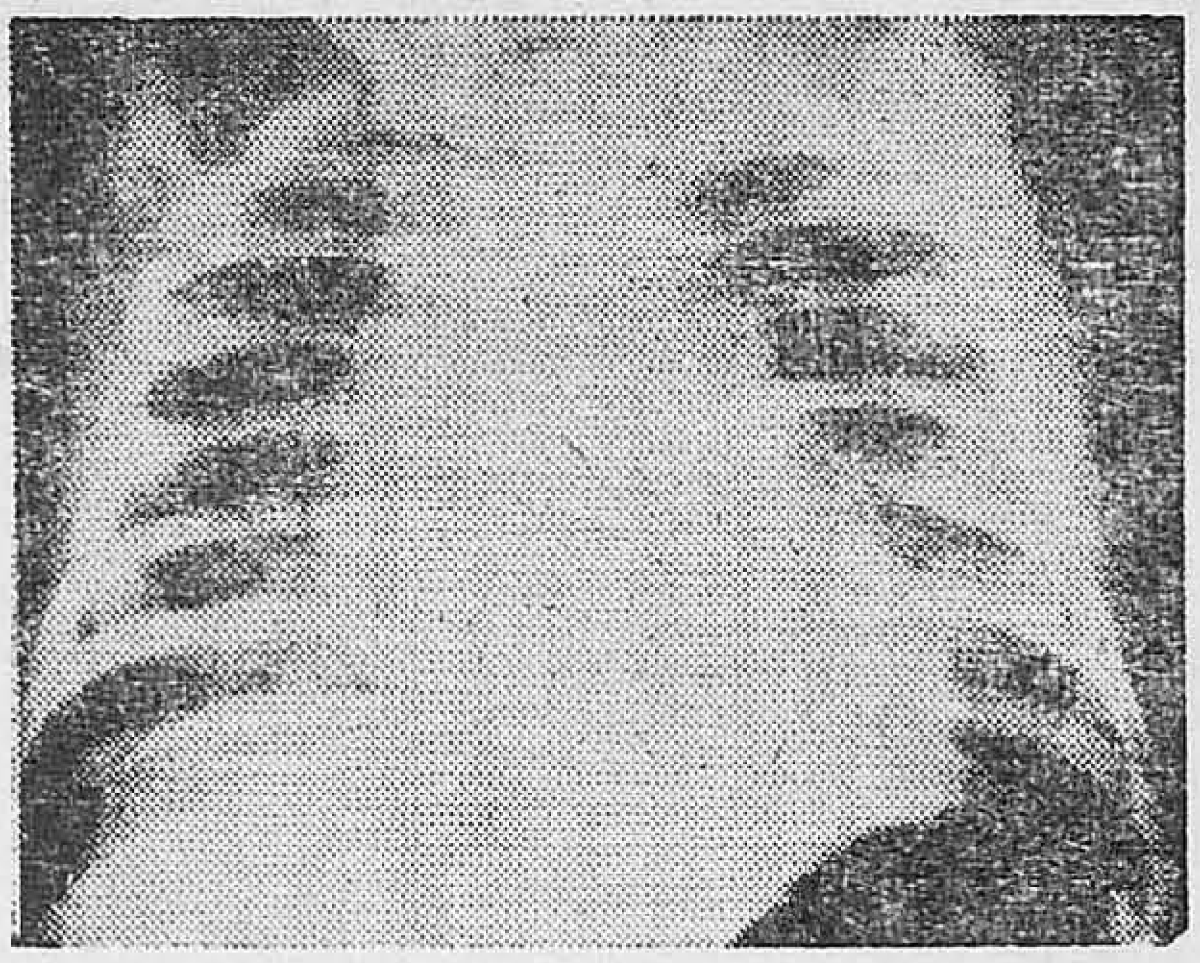
Managing Editor.

Readers Attention please !

Readers are requested to kindly insert these pages in place of pages 251, 252 & 253 in the March 1959 issue.

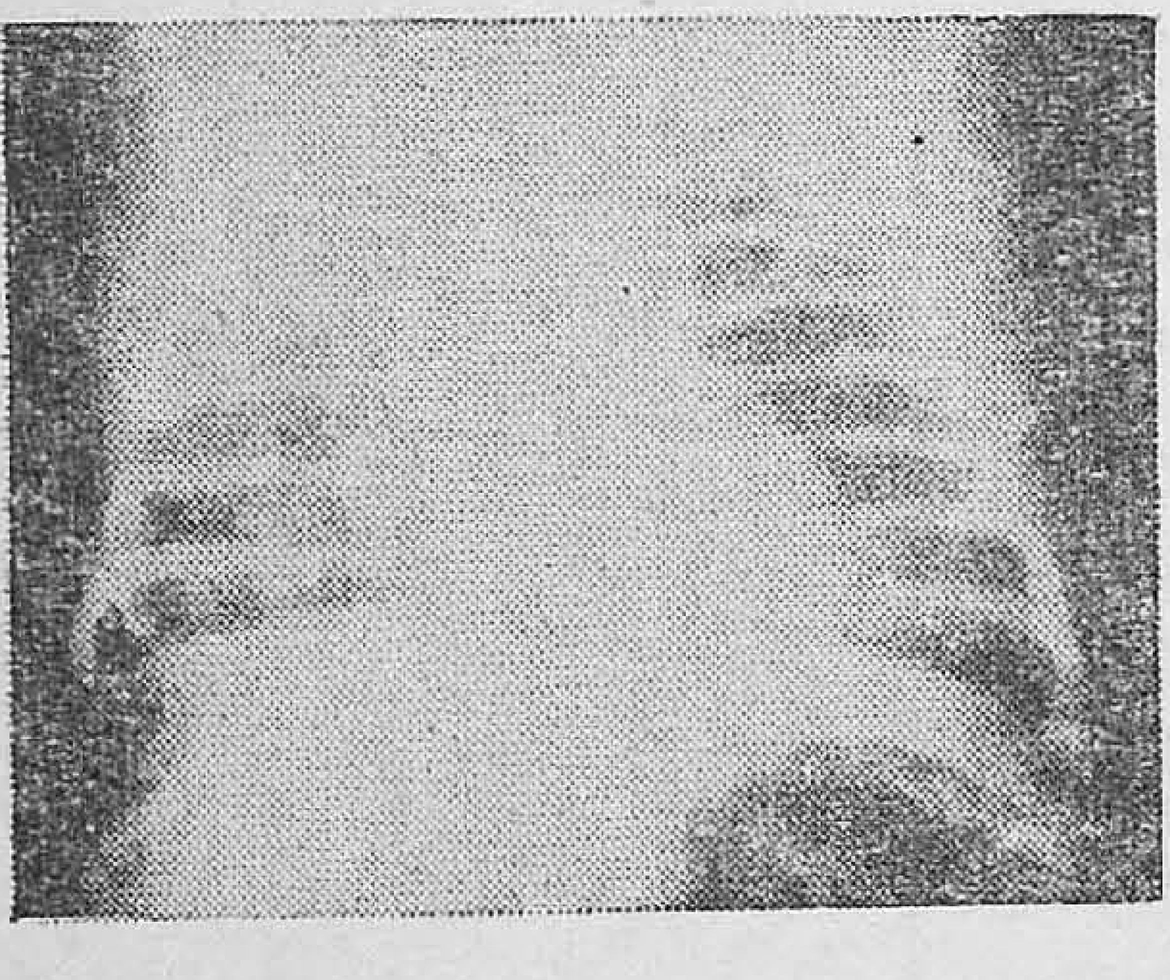
CHOANAL ATRESIA

X-Ray Showing probe in the nostril meeting the obstruction



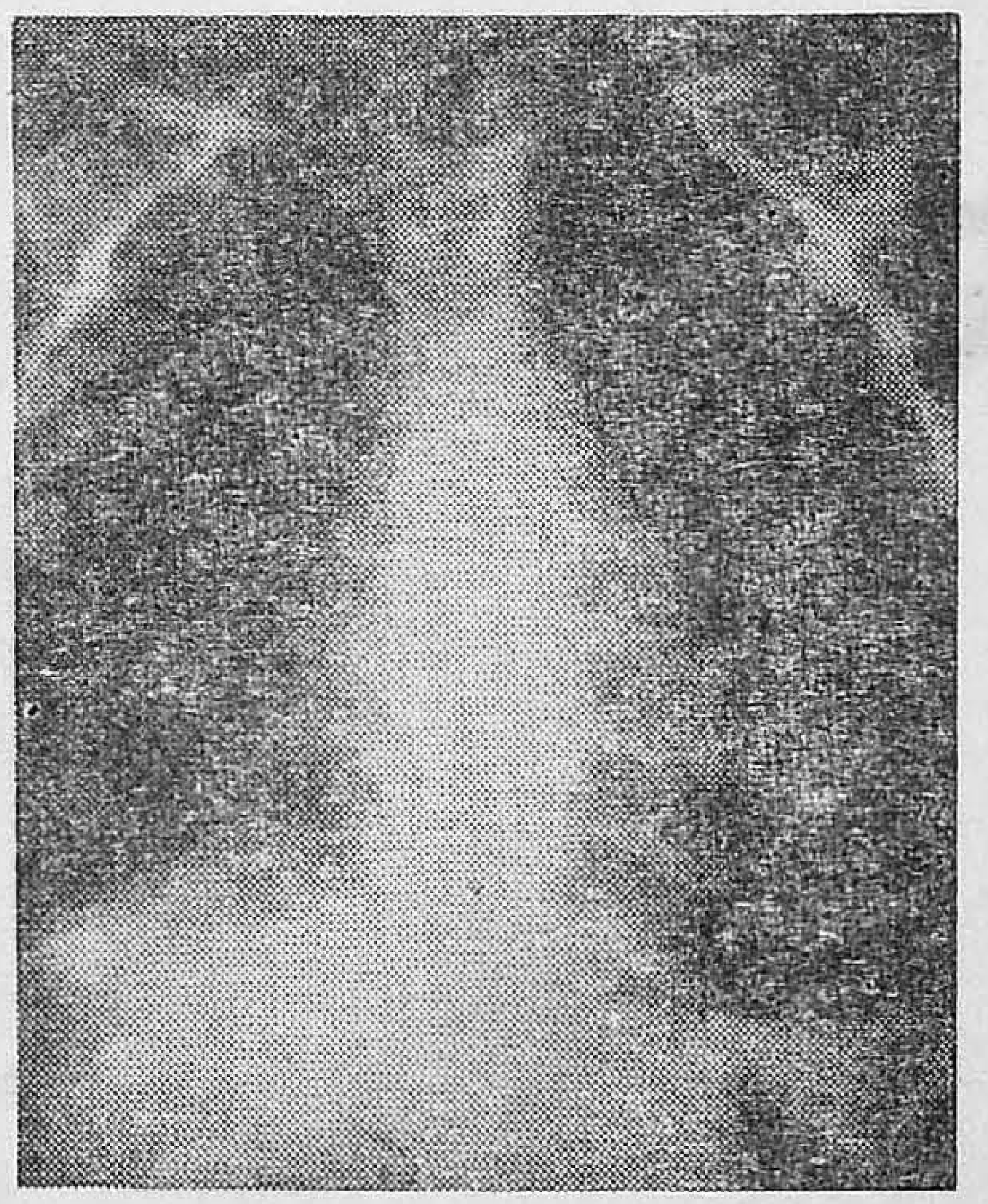
PULMONARY HYALINE MEMBRANE DISEASE

X-Ray of the chest taken 10 days later after the first X-Ray, showing partial clearing.



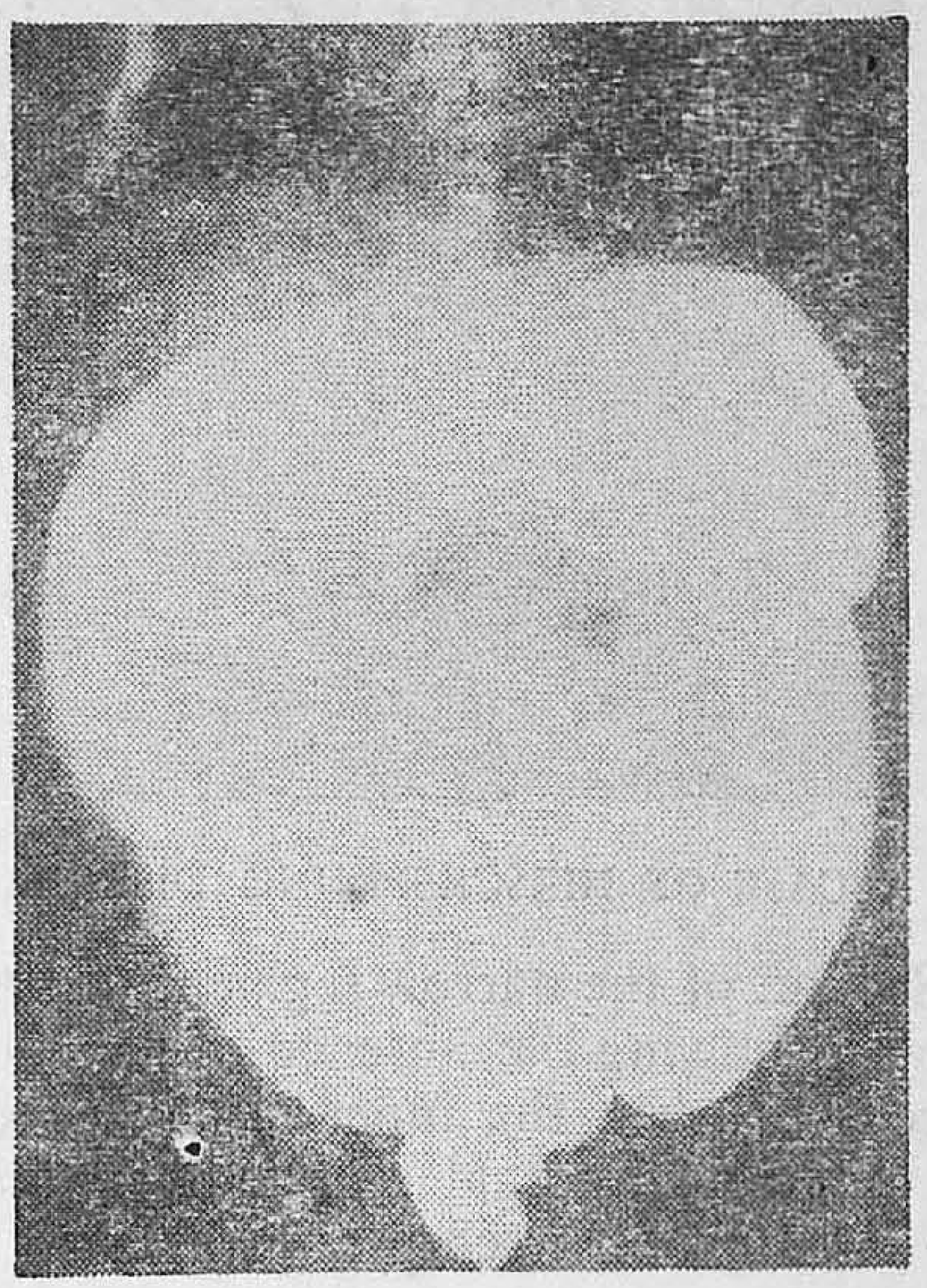
PULMONARY HYALINE MEMBRANE DISEASE

X-Ray of the chest showing generalised mottling throughout the lungs. (First X-Ray of the lungs).

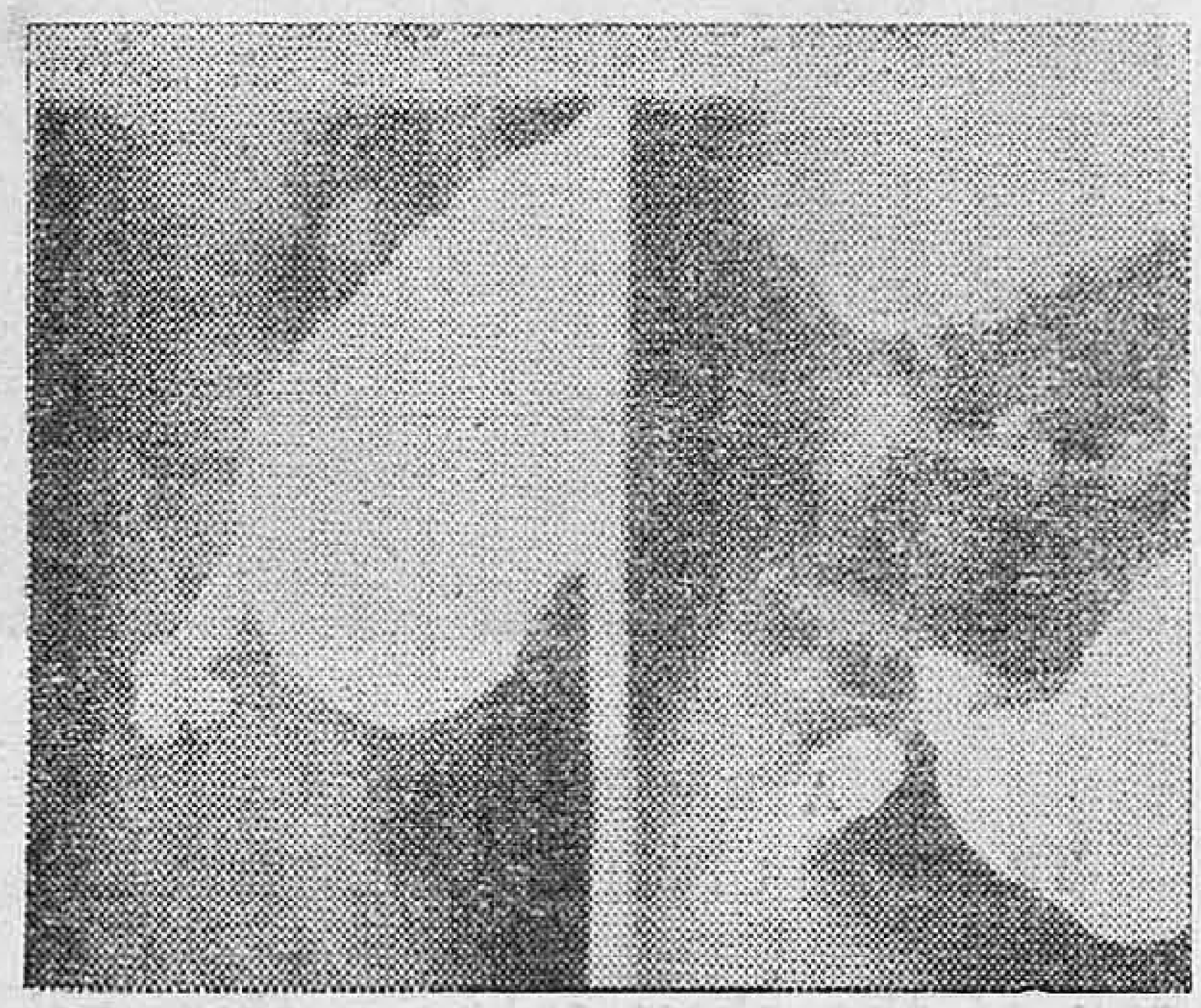


A case of foreign body in the bronchus stimulating bronchial asthma X-Ray of the chest-A. p. view showing a foreign body-a nail in the left main bronchus

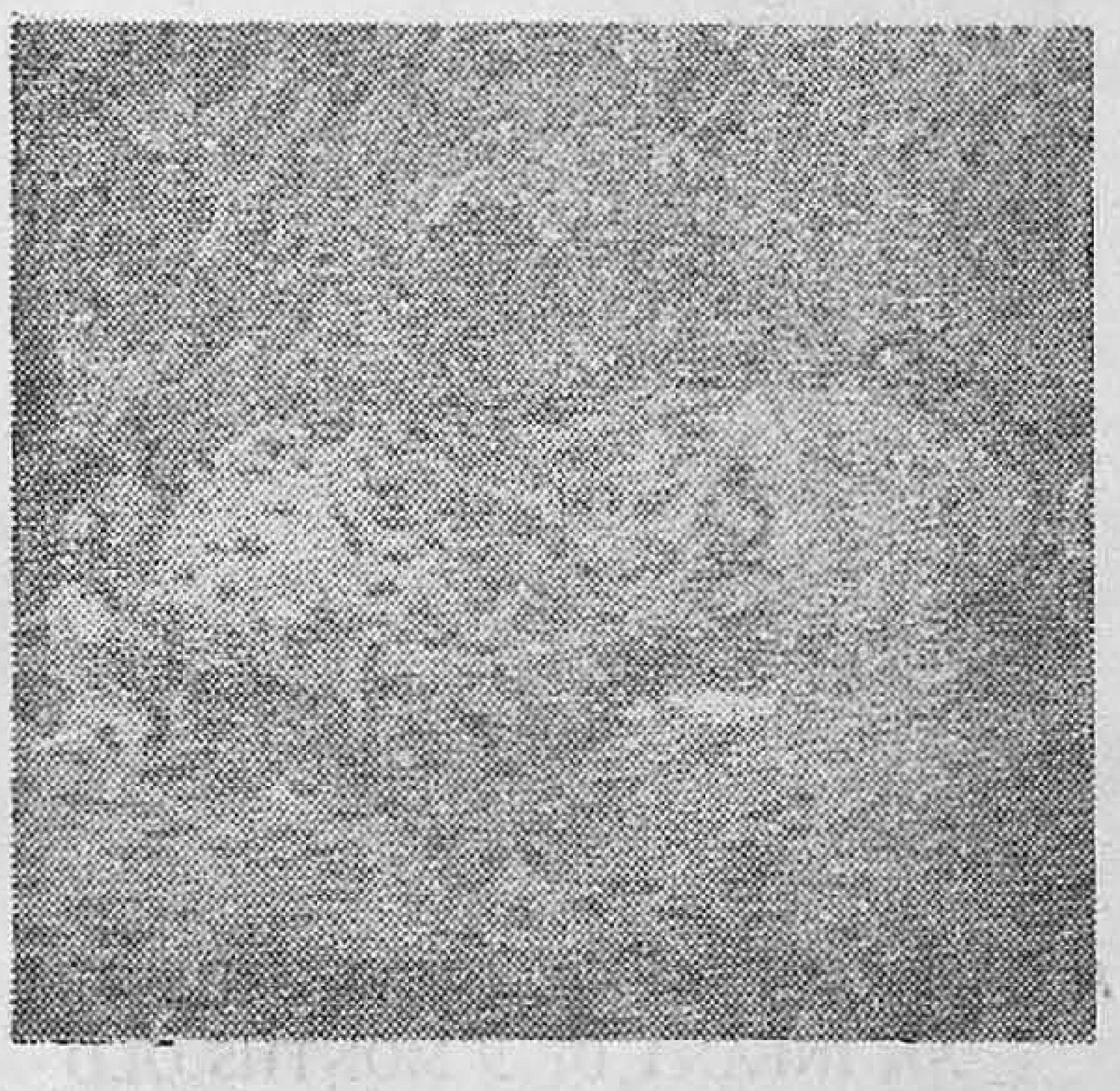
A case of foreign body in the bronchus stimulating bronchial asthma.
X-Ray of the chest-Lat view showing a foreign body a nail in the left main bronchus.



A case of Hirschsprung's Disease in an infant of 4 months.
X-Ray of the Colon A p. view after a small barium enema showing the narrow segment below the dilated colon.



A case of Hirschsprung's Disease in an infant of 4 months old.
X-Ray of the colon-oblique view after a small barium enema showing the narrow segment below the hugely dilated colon.



NORMAL COLON
Section of the colon showing the ganglion cells between the inner circular and the outer longitudinal muscle fibres in a normal colon.

A CASE OF HIRSCHSPRUNG DISEASE

Section of the narrow segment of the colon showing the absence of ganglion cells between the inner circular and outer longitudinal muscle fibres in a case of Hirschsprung disease.

A CASE OF DIAPHRAGMATIC HERNIA IN AN INFANT OF 9 MONTHS OLD

X-ray of the chest after a barium enema, Splenic flexor of the colon is seen in the left thorax. There is mediastinal shift to the right.

A RARE TYPE OF TRACHEO-OESOPHEGEAL FISTULA

X-ray of the chest taken with a catheter in the oesophagus and lipiodol pushed into the stomach. There is simultaneous filling of the oesophagus and trachea with a small fistulous tract between the oesophagus and trachea.